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Subject: FW: California State Plan for Compliance with sec. 111(d) and federal Landfill Emission Guidelines (40 CFR 60)
[Submission of California State Plan.pdf](#)
[California State Plan for Municipal Waste.pdf](#)

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Subject: California State Plan for Compliance with sec. 111(d) and federal Landfill Emission Guidelines (40 CFR 60)

Acting Regional Administrator Strauss,

The California Air Resources Board is providing U.S. Environmental Protection Agency with its California State Plan to implement the emission guidelines and compliance timelines for municipal solid waste landfills under 40 CFR Part 60, Subpart Cf. The California State Plan is being provided pursuant to the requirements of 40 CFR Part 60, Subpart B. I have also mailed out a paper copy for your records, including a compact disc with appendices. The State compliance plan, appendices and all related

information can be found at: <https://www.arb.ca.gov/cc/landfills/landfills.htm> under the "California's State Plan" section.

Please review the California State Plan and do not hesitate to contact me should you have any further questions.

Thank you.

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California Environmental Protection Agency
AIR RESOURCES BOARD

California State Plan for Municipal Solid Waste Landfills

Under Clean Air Act Section 111(d)

May 25, 2017

California Environmental Protection Agency
Air Resources Board
1001 I Street
Sacramento, California 95814

California State Plan for Municipal Solid Waste Landfills

May 25, 2017

This State Plan has been reviewed by the staff of the California Air Resources Board (ARB) and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of ARB.

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*Note: the State Plan and associated appendices are located at:

<https://www.arb.ca.gov/cc/landfills/landfills.htm> under the "California's State Plan" section.

EXECUTIVE SUMMARY

On August 29, 2016, the U.S. Environmental Protection Agency (U.S. EPA) published final Emission Guidelines (or "Guidelines") to reduce both methane and non-methane organic compound (NMOC) emissions from existing municipal solid waste (MSW) landfills (81 Fed. Reg. 59275 [Aug. 29, 2016]). The Guidelines apply to "existing" MSW landfills that commenced construction, modification, or reconstruction before July 17, 2014, and that have accepted waste at any time since November 8, 1987, or have additional capacity for future waste acceptance. The Guidelines require the installation of a landfill gas collection and control system (GCCS) at larger MSW landfills that exceed a specified design capacity and NMOC emission threshold.

The Guidelines require that the state submit a plan to the U.S. EPA, which identifies how the state intends to meet the federal requirements contained in the Guidelines. This document presents California's State Plan to implement the Guidelines. It was developed by the California Air Resources Board (ARB) with the assistance of the air quality management and air pollution control districts (districts) and others working together as an ad hoc Landfill 111(d) Workgroup.

1. What do the Guidelines require?

The Guidelines require owners or operators of MSW landfills that have design capacities equal to or greater than 2.5 million megagrams (Mg) by mass and 2.5 million cubic meters (m^3) by volume to install a GCCS at each landfill that (1) accepted waste at any time since November 8, 1987; (2) commenced construction, reconstruction, or modification on or before July 17, 2014; and (3) has a NMOC emission rate greater than or equal to 34 Mg per year (50 Mg for MSW landfills in the closed landfill subcategory) or reaches a surface methane concentration of 500 parts per million (ppmv) or greater, according to optional Tier 4 surface emissions monitoring. Landfills must combust the collected gas at 98 percent efficiency, or provide equivalent control. The federal regulation also contains requirements for surface methane emissions monitoring, wellhead monitoring, recordkeeping, and reporting requirements.

2. Why were the Guidelines developed?

As the waste in a MSW landfill decomposes, it breaks down to form landfill gas which includes methane (50%), carbon dioxide (CO_2) (50%), and NMOCs (<1%). Methane is a potent greenhouse gas (GHG). NMOCs include precursors to photochemical smog (ozone), odorous compounds, and toxics. Toxics are pollutants known or suspected to cause cancer, birth defects, and other serious adverse health effects. The Guidelines are intended to significantly reduce landfill gas emissions from large landfills.

3. How many existing landfills will be affected by the Guidelines?

U.S. EPA has identified a total of 195 MSW landfills in California that are subject to the Guidelines. These landfills are also subject to California's Landfill Methane Regulation (LMR). However, upon further review of U.S. EPA's list, and consultation with the Sacramento Metropolitan Air Quality Management District, it has been determined that L and D landfill is not subject to the Guidelines, although it continues to be subject to the LMR. Therefore, our State Plan does not include L and D landfill, resulting in 194 landfills in California actually affected by the Guidelines. Of these landfills, 105 are required by the Guidelines to install GCCS. All 105 landfills requiring controls have already installed GCCS because they are subject to the LMR. A table of MSW landfills that are subject to the Guidelines is provided in Appendix C.

4. What is the purpose of the State Plan?

The purpose of the State Plan is to implement the requirements of the Guidelines specified in 40 Code of Federal Regulations (CFR) Part 60, Subpart Cf--Emission Guidelines and Compliance Times for MSW Landfills. The Guidelines apply to existing MSW landfills that have accepted waste since November 8, 1987, or have the capacity to accept future waste and are not new (i.e., not subject to the New Source Performance Standards – 40 CFR Subpart XXX). Section 111(d) of the federal Clean Air Act (CAA) and 40 CFR Part 60 Subpart B (Adoption and Submittal of State Plans for Designated Facilities) require ARB and the districts to submit a State Plan to the U.S. EPA Regional Administrator. Under 40 CFR Part 60 Subpart Cf, States were required to submit their State Plans by May 30, 2017.

5. What are the major elements of the State Plan?

The major elements of the State Plan are a description of the legal basis and authority to implement the Guidelines, emission standards and compliance times, procedures (such as test methods) used for determining compliance with the emissions standards, legally enforceable increments of progress towards compliance, source and emission inventories of designated facilities, provisions for annual emission reporting and progress reports on enforcing the Guidelines, and a description of public participation in implementing the Guidelines.

6. What is the status of the Guidelines implementation?

This document demonstrates that California's statewide LMR is procedurally equal to and substantively more stringent than the federal Guidelines, not only achieving, but exceeding the reductions specified in the Guidelines. Therefore, the LMR is being submitted as the State's plan to implement the Guidelines. California's LMR which reduces emissions of methane and NMOCs from MSW landfills was approved by the Board on June 25, 2009. The LMR became effective on June 17, 2010; it requires owners and operators of certain uncontrolled MSW landfills to install GCCS's and requires existing and newly installed GCCSs to operate in an optimal manner. The

regulation is a discrete early action measure to reduce GHG emissions under California's Assembly Bill 32 (AB 32).

In every relevant instance, the LMR produces results as or more stringent than the Guidelines require. The LMR has improved how California captures and controls landfill gas emissions. Prior control devices were only required to achieve a NMOC destruction efficiency of 98 percent. Under the LMR, most control devices must achieve a methane destruction efficiency of at least 99 percent. Prior to the LMR, most landfills were only required to meet an instantaneous surface emission standard of 500 ppmv. Under the LMR, landfills must meet both an instantaneous surface emission standard of 500 ppmv and an integrated surface emission standard of 25 ppmv. By controlling landfill gas, you control emissions of methane, NMOC, toxic substances, and odorous compounds.

Landfill owners and operators are familiar with the requirements of the LMR and many key requirements in the LMR mirror those found in the Guidelines. Should U.S. EPA approve the LMR as California's compliance plan, recognizing that it provides equivalent or greater reductions, sources complying with the requirements of California's LMR will also comply with the Guidelines. A copy of the LMR is located at: <https://www.arb.ca.gov/regact/2009/landfills09/landfillfinalfro.pdf>.

INTRODUCTION

ARB is a world leader in addressing climate change, and fully supports U.S. EPA's rulemaking efforts to reduce both methane and NMOC from landfills. Recognizing the importance of reducing methane emissions, ARB's first Scoping Plan,¹ identifies methane reductions from landfills as a priority discrete early action measure in California's suite of GHG-reduction measures. As a result, ARB adopted the LMR as a statewide regulation² which became effective on June 17, 2010. As demonstrated in Appendix F "Emissions Reductions from California's Landfill Methane Regulation Beyond the Emission Guidelines," ARB estimates that, in addition to the methane reductions that could be realized with implementation of the Guidelines, the LMR regulates an additional 30 landfills in California, resulting in an additional 91,193 metric tons of CO₂e per year³ of GHG reductions and 198 short tons per year of NMOC.

Further demonstrating that reducing landfill emissions can play a key role in meeting our climate change goals, the Board recently approved the Short-Lived Climate Pollutant Reduction Strategy,⁴ which includes targets for the diversion of organics from landfills by 50 percent of 2014 levels by 2020, and 75 percent of 2014 levels by 2025. We anticipate that this measure will result in an additional reduction of 4 million metric tons of methane in 2030, which results in 14 million tons of methane reduced over the lifetime of waste decomposition. Finally, ARB's 2017 Climate Change Scoping Plan Update⁵ highlights our past accomplishments and identifies additional waste management sector measures to reduce GHG emissions.

As California's state plan, the LMR builds on ARB's existing programs that, together, significantly reduce landfill emissions. Although there are some non-substantive differences between California's LMR and the Guidelines, the LMR imposes fundamentally similar procedural requirements on operators and is more stringent in substance than the Guidelines because it applies to smaller landfills (in addition to larger landfills) and has more stringent requirements for methane collection and control, component leak testing, and surface emissions monitoring and compliance time

¹ California Air Resources Board, *Climate Change Scoping Plan* (2008) available at https://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf was written in response to the California Global Warming Solutions Act of 2006, Health & Saf. Code § 38500, et seq., Assembly Bill 32 (Nunez, ch. 488, Stats. of 2006).

² Methane Emissions from Municipal Solid Waste Landfills, Cal. Code Regs. tit., § 95460, et seq., available at <https://www.arb.ca.gov/regact/2009/landfills09/landfillfinalfro.pdf>.

³ Based on 2015 Emissions.

⁴ California Air Resources Board, *Short-Lived Climate Pollutant Reduction Strategy* (Mar. 2017) available at https://www.arb.ca.gov/cc/shortlived/meetings/03142017/final_slcp_report.pdf.

⁵ California Air Resources Board, *The 2017 Climate Change Scoping Plan Update* (Jan. 2017) available at https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf.

frames. It also regulates all of the landfills subject to subpart Cf, as well as an additional 30 landfills, and delivers more reductions than the Guidelines.

This State Plan is organized as follows:

- Appendix A contains California's LMR which was approved by the Board on June 25, 2009 as an early action measure under AB 32 and which became effective on June 17, 2010.
- Appendix B supplements the demonstration of legal authority in this plan. It contains the 1997 Attorney General's certification that the laws of California provide adequate authority to carry out the State Plan. It also contains the 1993 Attorney General's certification that the laws of California provide adequate authority to implement Title V (Operating Permits) of the CAA. The provisions of law under these two certifications were previously submitted and approved under 40 CFR Part, 60, Subpart B.⁶
- Appendix C provides a listing of MSW landfills that are affected by the Guidelines.
- Appendix D contains the meeting notices for ARB's workshop dated January 10, 2017, and Board hearing dated May 25, 2017, informing the public of California's 111(d) MSW landfill compliance strategy, along with a summary of public comments and other relevant information.
- Appendix E is a comparison of the major provisions of the Guidelines and California's LMR.
- Appendix F identifies emissions reductions from California's LMR beyond the Guidelines.
- Appendix G contains the MOUs signed between ARB and California's districts regarding implementation and enforcement of California's LMR.
- Appendix H contains the relevant provisions of law that were not previously certified or submitted under the 1997 Guidelines State Plan, or the 1993 operating permit State Plan, and are therefore required to be submitted under 40 CFR Part 60, Subpart B.
- Appendix I contains ARB Resolution 17-16, adopted by the Board on May 25, 2017.

⁶ 40 CFR § 60.26.

II.

FEDERAL REQUIREMENTS

A. EMISSION GUIDELINES FOR MUNICIPAL SOLID WASTE LANDFILLS

The U.S. EPA promulgated the Guidelines for MSW landfills to implement section 111(d) of the CAA. The Guidelines require the states to submit a plan that establishes standards and compliance schedules for existing landfills (e.g., standards for the landfill GCCS and compliance schedule for installing controls). The Guidelines establish minimum criteria that a state is to use in developing its emissions standards. ARB is the state agency charged with CAA compliance and with greenhouse gas regulations, and is responsible for this plan. However, California air districts are otherwise the primary regulators of stationary sources and, recognizing their important role, the ARB LMR is implemented in partnership with the air districts. Therefore, ARB and the districts are together responsible for developing a plan for implementing the Guidelines and submitting the plan to the U.S. EPA Administrator for approval. ARB and districts have determined that submittal of the LMR as California's State Plan is the best strategy for compliance with the Guidelines.

An existing MSW landfill subject to the requirements of the Guidelines is a landfill that commenced construction, modification, or reconstruction before July 17, 2014, and has accepted waste at any time since November 8, 1987, or has additional capacity for future waste deposition. The Guidelines require owners or operators of MSW landfills meeting these conditions, and that have design capacities equal to or greater than 2.5 million Mg by mass and 2.5 million m³ by volume to install a GCCS at each landfill that:

- Accepted waste at any time since November 8, 1987;
- Commenced construction, reconstruction, or modification on or before July 17, 2014; and
- Has a NMOC emission rate greater than or equal to 34 Mg per year (50 Mg for MSW landfills in the closed landfill subcategory) or the optional Tier 4 surface emissions monitoring shows a surface emission concentration of 500 ppmv methane or greater.

The collected gas must be combusted at 98 percent efficiency, unless equivalent control is implemented. The federal regulation also contains requirements for surface methane emissions monitoring, wellhead monitoring, and recordkeeping and reporting.

Owners and operators of MSW landfills subject to the Guidelines are not required to comply with its requirements until such time U.S. EPA has approved the State Plan or

promulgated a federal plan for districts that fail to submit their own plans through ARB. However, all of these landfills continue to be regulated under, and responsible for compliance with, ARB's LMR, regardless of federal implementation status.

B. STATE PLAN

California is submitting its LMR as its State Plan for implementing the Emission Guidelines for existing MSW landfills as required by Section 111(d) of the CAA and 40 CFR Part 60 Subpart B. Under this approach, landfills subject to the Guidelines (40 CFR Part 60, Subpart Cf) will have a federally enforceable obligation to comply with the LMR, while other landfills not subject to the Guidelines will continue to have only state-enforceable obligations. U.S. EPA could recognize this distinction in its notice of decision.

Much like its counterpart provision for criteria pollutant planning, section 110, section 111(d) is intended to provide states with appropriate discretion to secure federally-required emission reductions. ARB appreciates that U.S. EPA has recognized, in the recent section 111(d) rulemaking for the power sector, that state measures can supply appropriate compliance pathways if they satisfy federal requirements. This degree of state flexibility is important to integrate successful state programs into the federal structure, consistent with the cooperative federalism approach of the CAA. It also helps to ensure that innovative state rulemakings can inform progress on the federal level, and perhaps be adopted by other states. ARB looks forward to working with U.S. EPA to ensure that the LMR can serve to comply with these important federal emissions reduction requirements.

ARB accordingly demonstrates herein that the LMR is in fact more stringent than the Guidelines. Capturing methane captures NMOC because it is all landfill gas and the control system does not distinguish the compounds within the landfill gas. The LMR has more stringent requirements for methane collection and control, component leak testing, surface emissions monitoring, and compliance time frames. It also applies to more landfills than does the federal rule. In addition, California's statewide LMR has been in effect since 2010 and is being jointly implemented and enforced by ARB and the districts.

The LMR, in sum, nets a greater reduction in methane emissions as described above, and U.S. EPA approval of the LMR as California's compliance plan will reduce regulatory burden on operators while achieving all of the goals of the Guidelines. Affected landfill owners and operators are already familiar with the LMR, and many key requirements in the Guidelines mirror those found in the LMR. Sources complying with the requirements of California's more stringent LMR will reduce their emissions at least as much as the Guidelines require. A copy of the LMR is provided in Appendix A and can also be found at: <https://www.arb.ca.gov/regact/2009/landfills09/landfillfinalfro.pdf>.

A comparison of the key provisions of the Guidelines and California's LMR demonstrating that the LMR satisfies the requirements specified in the Guidelines is provided in Appendix E "Comparison of the Major Provisions of the Emission Guidelines and California's Landfill Methane Regulation." Appendix F illustrates the emissions reductions from California's LMR that exceed those required by the Guidelines. The State Plan also includes the major components listed below.

1. Legal Basis and Authority; Identification of Enforceable Mechanism

The State Plan must include a demonstration of the state's legal authority to carry out the State Plan. Pursuant to 40 CFR Part 60, Subpart B, section 60.26, States must show they have legal authority, through enforceable mechanisms to "(1) establish emission standards and compliance schedules applicable to designated facilities and pollutants identified under the Guidelines; (2) enforce applicable laws, regulations, standards, and compliance schedules, and seek injunctive relief; (3) obtain information necessary to determine whether designated facilities are in compliance with applicable laws, regulations, standards, and compliance schedules, including authority to require recordkeeping and to make inspections and conduct tests of designated facilities; and (4) require owners or operators of designated facilities to install, maintain, and use emission monitoring devices and make periodic reports to the State on the nature and amounts of emissions from such facilities and for the State to make such data available to the public." States may adopt and enforce more stringent standards than required by the Guidelines under 40 CFR Part 60, Subpart B, section 60.24(g).

ARB's authority to regulate and plan for compliance with the CAA requirements is extensive. By statute, ARB is "designated as the air pollution control agency for all purposes set forth in federal law," including 111(d) of the CAA, and Guidelines promulgated under that section.⁷ This includes all acts "as may be necessary for the proper execution of its duties," including adopting and implementing rules and regulations.⁸ ARB also has authority to gather information on air pollutants and their sources.⁹ ARB also has primary AB 32 authority over sources of GHG emissions, with the authority to coordinate with other agencies for implementation and enforcement.¹⁰ Districts also have authority to implement and enforce this State Plan pursuant to an MOU. California Health and Safety Code section 40000 states that the districts have primary responsibility for control of stationary sources. In the case of the LMR, section 95473 allows ARB to enter into agreements with the districts to implement and enforce the LMR.¹¹ ARB signed an MOU with most districts for implementation and enforcement of the LMR. Under these provisions, ARB and the districts have ample statutory and regulatory authority to develop, implement, and enforce the State Plan.

⁷ Health & Saf. Code §39602.

⁸ Health & Saf. Code §§39600, 39601.

⁹ Health & Saf. Code § 39607.

¹⁰ Health & Saf. Code § 38501.

¹¹ Health & Saf. Code §§ 38501, 38510, 38560, 38560.5, 38580, 39600, 39601; Cal. Code Regs., tit. 17, § 95473.

Specific authority is outlined below. Copies of referenced laws or regulations are attached in Appendix H and include the date of adoption, last amendment date, and effective date, where applicable. The specific authorities provided are contained in statutes, regulations, and MOUs, which are or will be fully effective by the time the State Plan is approved, and include those identified below and those incorporated by reference from Appendix B, the enclosed letter dated February 3, 1997, addressing California's authority to implement the initial Guidelines for Municipal Solid Waste Landfills promulgated in 1997; and the enclosed letter dated November 12, 1993, addressing California's authority to implement Title V (Operating Permits) of the CAA. In both letters, the Attorney General certified that the State and districts have the authority to implement the federal CAA Guidelines and Title V operating permits. Although such a certification is not required by the Guidelines, it further supports the demonstration here.

Authority to Adopt Emission Standards and Enforceable Conditions

State law provides authority for ARB and California's 35 districts to: (1) adopt rules and regulations establishing emission standards and other requirements applicable to the designated facilities; and (2) issue operating permits to the designated facilities and to incorporate into permits conditions that assure compliance with each applicable requirement of the CAA. State law also provides for prohibition of permit issuance to facilities that do not comply with applicable requirements. Applicable requirements include the requirements of Guidelines promulgated under CAA section 111(d). Applicable requirements also include district prohibitions against discharge of air contaminants under Health and Safety Code section 41700.

These authorities are cited in the enclosed February 3, 1997 letter, page 1, "Adoption of Emission Standards and Enforceable Conditions," page 2, "Enforcement of the Relevant Laws, Regulations, Standards, and Compliance Schedules," and page 5, "Retention of Delegated Enforcement Authority," and the enclosed November 12, 1993 letter, pages 1-3, "Authority to Issue Permits," page 7, "Incorporation of All Applicable Requirements into Permit," and as additionally specified below.

- *Federal Authority:* CAA §§111(b)(1)(A) [42 U.S.C. §7411(b)(1)(A)], 111(d) [42 U.S.C. §7411(d)]; 40 CFR Part 60, Subpart CC: 40 CFR §§ 60.33c, 60.34c, 60.35c, and 60.36c; 40 CFR Part 70, Subpart C: 40 CFR §§ 70.2, 70.3(a), and 70.3(b); 40 CFR Part 60, Subpart Cf: 40 CFR §60.30f, 60.31f, 60.32f, 60.33f, 60.34f, 60.35f, 60.36f, 60.37f, 60.38f, 60.39f, 60.40f, and 60.41f.
- *Statutory Authority:* Health and Safety Code §§ 38501, 38510, 38551, 38560, 38560.5, 38562, 38566, 38580, 38592, 38597, 39002, 39003, 39600, 39601, 39602.5, 39659, 40000, 40001, 40506.1, 40752, 41500, 41511, 41513, 40702, 41700, 41701, 42300, 42300.1, 42301.1, 42301.6, 42301.12, 42315, 42350, 42353, 42400, 42400.1, 42400.2, 42400.3, 42400.3.5, 42400.4, 42400.8, 42401, 42402.1, 42402.2, 42402.4, 42403, and 42450.

- *Regulatory Authority:* Cal. Code Regs. tit. 17 §§ 95461, 95463, 95464, 95465, 95469, 95472, and 95473.

Authority to Adopt Compliance Schedules

State law provides authority for the districts to issue permits to sources that are not in compliance with applicable requirements, and to include compliance schedules in permits to bring sources into compliance through adoption of compliance schedules applicable to the designated facilities and pollutants. These authorities are cited in the enclosed February 3, 1997 letter, pages 3-4, "Adoption of Compliance Schedules," and the enclosed November 12, 1993 letter, pages 3-4, "Authority to Issue Permits to Noncomplying Sources" and as additionally specified below.

- *Federal Authority:* CAA §§111(b)(1)(A) [42 U.S.C. §7411(b)(1)(A)], 111(d) [42 U.S.C. §7411(d)]; 40 CFR Part 60, Subpart CC: 40 CFR §60.36c; 40 CFR Part 60, Subpart Cf: 40 CFR §§60.32f and 60.36f.
- *Statutory Authority:* Health and Safety Code §§ 39601, 40702, 41703, 42301.1, 42301.5, 42315, 42353, 42357, and 42358.
- *Regulatory Authority:* Cal. Code Regs., tit. 17, §§ 95463, 95464, 95469, 95470, and 95473.

Authority to Enforce Relevant Laws, Regulations, Standards, and Compliance Schedules and Seek Injunctive Relief

State law provides civil and criminal enforcement authority to enforce relevant laws, regulations, standards, and compliance schedules, including authority to seek injunctive relief, as cited in the February 3, 1997 letter, page 3, "Enforcement of Relevant Laws, Regulations, Standards, and Compliance Schedules" and in the enclosed November 12, 1993 letter, page 11, "Enforcement of Permits Program Requirements" and as additionally specified below.

- *Federal Authority:* CAA §§111(b)(1)(A) [42 U.S.C. §7411(b)(1)(A)], 111(d) [42 U.S.C. §7411(d)]; 40 CFR Part 60, Subpart CC: 40 CFR §60.36c; 40 CFR Part 60, Subpart Cf: 40 CFR §§ 60.30f, 60.31f, 60.32f, 60.33f, 60.34f, 60.35f, 60.36f, 60.37f, 60.38f, 60.39f, 60.40f, and 60.41f.
- *Statutory Authority:* Health and Safety Code §§ 39601, 39659, 41513, 42300.1, 42301, 42453, 42356, 42362, 42402, and 42402.3.
- *Regulatory Authority:* Cal. Code Regs., tit., 17 § 95473.

Authority to Obtain Information

State law provides authority to obtain information necessary to determine whether designated facilities are in compliance with applicable laws, regulations, standards, and compliance schedules, including authority to require recordkeeping and to make inspections and conduct tests of designated facilities; and provides authority to request information from regulated sources regarding their compliance status as cited in the February 3, 1997 letter, pages 3-5, "Authority to Obtain Information" and "Authority to Require Recordkeeping, Make Inspections, and Conduct Tests," and in the enclosed November 12, 1993 letter, page 6, "Monitoring, Recordkeeping, and Reporting," and as additionally specified below.

- *Federal Authority:* CAA §§111(b)(1)(A) [42 U.S.C. §7411(b)(1)(A)], 111(d) [42 U.S.C. §7411(d)], 114 [42 U.S.C. §7414]; 40 CFR Part 60, Subpart CC: 40 CFR §60.35c; 40 CFR Part 60, Subpart Cf: 40 CFR §§ 60.36f, 60.37f, 60.38f, and 60.39f.
- *Statutory Authority:* Health and Safety Code §§ 39600, 39601, 39605, 39607, 39659, 41510, 41513, 42301.3, 42303.5, 42336, 42706, 44341, 44344, and 44344.5.
- *Regulatory Authority:* Cal. Code Regs., tit. 17, §§ 95463, 95464, 95470, and 95473.

Authority to Require Recordkeeping, Make Inspections, and Conduct Tests

State law provides authority to require recordkeeping, incorporate recordkeeping requirements into operating permits, provides authority to inspect sources and any records required to determine a source's compliance status, and provides authority to conduct tests as cited in the February 3, 1997 letter, page 4, "Authority to Require Recordkeeping, Make Inspections, and Conduct Tests," and in the November 12, 1993 letter, pages 6-7, "Monitoring, Recordkeeping, and Reporting," page 7, "Inspection/Entry Authority," and as additionally specified below.

- *Federal Authority:* CAA §§111(b)(1)(A) [42 U.S.C. §7411(b)(1)(A)], 111(d) [42 U.S.C. §7411(d)], 114 [42 U.S.C. §7414], 504 [42 U.S.C. 7661c]; 40 CFR Part 60, Subpart CC: 40 CFR §§ 60.35c and 60.34c; 40 CFR Part 70, Subpart C: 40 CFR § 70.6(c)(1); 40 CFR Part 60, Subpart Cf: 40 CFR §§ 60.37f, 60.38f, and 60.39f.
- *Statutory Authority:* Health and Safety Code §§ 39601, 40701, 41513, 42707, 44366, 39607, 41510, 41511, 42303, 44340, and 44342.
- *Regulatory Authority:* Cal. Code Regs., tit. 17 §§ 95470 and 95473.

Authority to Require Use of Monitors and Require Emission Reports

State law provides authority to require owners or operators of designated facilities to install, maintain, and use emission monitoring devices and make periodic reports to the State on the nature and amounts of emissions from such facilities and to incorporate monitoring and reporting requirements into operating permits as cited in the February 3, 1997 letter, page 5, "Authority to Require Use of Monitors and Require Emission Reports," and in the enclosed November 12, 1993 letter, pages 6- 7, "Monitoring, Recordkeeping, and Reporting" and as additionally specified below.

- *Federal Authority:* CAA §§111(b)(1)(A) [42 U.S.C. §7411(b)(1)(A)], 111(d) [42 U.S.C. §7411(d)]; 40 CFR Part 60, Subpart CC: 40 CFR §§ 60.34c and 60.35c; 40 CFR Part 60, Subpart Cf: 40 CFR §§ 60.33f, 60.34f, 60.35f, 60.36f, 60.37f, 60.38f, 60.39f, and 60.40f.
- *Statutory Authority:* Health and Safety Code §§ 39601, 39607, 39659, 41513, 42315, 42303, 44344.5, and 44344.7.
- *Regulatory Authority:* Cal. Code Regs. tit. 17 §§ 95469, 95470, and 95473.

Authority to Make Emission Data Available to the Public

State law provides authority to make available to the public emissions data, any permit application, compliance plan, permit, and monitoring and compliance certification report, except for information entitled to confidential treatment as cited in the enclosed February 3, 1997 letter, page 5, "Authority to Make Emission Data Available to the Public," and the November 12, 1993 letter, pages 10-11, "Public Access to Permit Information" and as additionally specified below. State law also provides that the contents of an operating permit, except for trade secret information which is not emission data, shall not be entitled to confidential treatment.

- *Federal Authority:* CAA §§111(b)(1)(A) [42 U.S.C. §7411(b)(1)(A)], 111(d) [42 U.S.C. §7411(d)], 114(c) [42 U.S.C. §7414(c)], 502(b)(8) [42 U.S.C. §7661a(b)(8)], 503(e) [42 U.S.C. §7661b(e)], 5 U.C.S. §552; 40 CFR Part 70, Subpart C: 40 CFR §70.4.
- *Statutory Authority:* Health and Safety Code §§ 39601, 39601.5, 39604, 39607, 41513, 42301.6, 42337, 42409; and Gov. Code § 6254.7.
- *Regulatory Authority:* Cal. Code Regs., tit. 17, § 91001 and 93300.5.

Authority to Retain Delegated Enforcement Authority

State law provides authority for the State to retain enforcement authority even when such authority is delegated to the districts as cited in the enclosed February 3, 1997 letter on pages 3-4 "Retention of Delegated Enforcement Authority" along with the

November 12, 1993 letter on page 11, "Enforcement of Permits Program Requirements," and as additionally specified below.

- *Federal Authority:* CAA §§111(b)(1)(A) [42 U.S.C. §7411(b)(1)(A)], 111(d) [42 U.S.C. §7411(d)]; 40 CFR Part 60, Subpart A: 40 CFR § 60.10; 40 CFR Part 60, Subpart Cf: 40 CFR § 60.30f.
- *Statutory Authority:* Health and Safety Code §§ 38510, 38580, 39001, 39002, 39003, 39600, 39601, 39602, 39605, 40000, 40001, 40701, 40702, 41500, 41513, 42362, 44365, and 42362.
- *Regulatory Authority:* Cal. Code Regs. tit., 17 95473; Memorandum of Understanding Between the California Air Resources Board and Districts Regarding Implementation and Enforcement of Regulation to Reduce Methane Emissions from Municipal Solid Waste Landfills.

2. Emission Standards and Compliance Schedules

The emission standards adopted by the state cannot be less stringent than the Guidelines. In addition, pursuant to 40 CFR Part 60 Subpart B, Adoption and Submittal of State Plans for Designated Facilities, section 60.24(c), compliance schedules must match those of the Guidelines. As we explain below, the LMR is more stringent than the Guidelines, and its reporting provisions and compliance schedules allow ARB and the districts to ensure that compliance is maintained, and to file any necessary reports with U.S. EPA.

Emission Standards

In every relevant instance, the LMR produces results as or more stringent than the Guidelines require. The Guidelines require that GCCS must be operated so that the methane concentration is less than 500 ppmv above background at the surface of the landfill. Section 95465 of the LMR requires that the GCCS be operated so that at no location on the landfill surface exceeds methane concentrations of 500 ppmv instantaneous surface methane emission standard, in addition to a 25 ppmv integrated surface emission standard; which is more stringent than the Guidelines.

The Guidelines require that a control device must achieve a NMOC destruction efficiency of 98 percent. Carbon adsorption and passive GCCS are allowed if specified conditions are met. Because section 95464 of the LMR requires a methane destruction efficiency of 99 percent for most control devices; the LMR complies with the Guidelines. In addition, section 95464(b)(1)(B) establishes a component leak standard of 500 ppmv that is not specified in the Guidelines. The LMR does not allow the use of carbon adsorption or passive GCCS.

For all of these reasons, ARB is confident that continuing compliance with the LMR will satisfy the pollution reductions required by the Guidelines.

Compliance Schedules

In general, the LMR's compliance timeframes are more stringent than the Guidelines as illustrated in Appendix E and discussed in section II, subsection 4 on page 15.

3. Test Methods; Monitoring, Recordkeeping and Reporting Requirements

The State Plan must contain test methods and procedures for determining compliance with the emission standards. States can choose test methods or procedures that are different than those specified in 40 CFR Part 60. However, the test methods or procedures must be shown to be equivalent to the federal requirements including monitoring, recordkeeping, and reporting procedures.

Test Methods

The Guidelines requires the use of the following test methods and procedures:

- Specified equations are to be used for determining: (1) the NMOC emission rate if the actual year-to-year solid waste acceptance rate is known, (2) the NMOC emission rate if the actual year-to-year solid waste acceptance rate is unknown, (3) determining NMOC emission rate when a gas system can be removed, (4) control efficiency, and (5) maximum gas generation flow rate.
- Method 21 must be used for the measurement of methane utilizing a gas detector.
- Method 2E must be used to determine site-specific methane generation rate.
- Methods 25, 25C, or 18 of appendix A must be used for the performance test to determine compliance and to determine NMOC concentration.
- Method 3 or 3A must be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent.
- Method 3C must be used to determine the nitrogen level and Method 3A, 3C, or ASTM D6522-11 must be used to determine the oxygen level by using an oxygen meter for wellhead monitoring.

As illustrated in Appendix E, and in section 95471 "*Test Methods and Procedures*," the LMR requires the use of the similar test methods and procedures. Both the Guidelines and LMR contain requirements for wellhead monitoring. The LMR focuses on requiring pressure monitoring for fire prevention, and to demonstrate sufficient vacuum on individual extraction wells in order to minimize methane emissions.

Monitoring

Both the Guidelines and the LMR require surface methane emissions monitoring. However, the LMR again goes further. It requires both instantaneous and integrated surface methane emissions monitoring. Integrated monitoring averages the point source measurements and is a good indicator of how well the gas collection system is operating overall. The LMR provides an incentive for establishing a history of compliance with the surface methane emission standards. If in compliance, the landfill owner or operator of a closed or inactive MSW landfill can decrease their sampling frequency from quarterly to annually.

The Guidelines provides a walking pattern spacing of 30 meters (or about 100 feet), whereas section 95471(c)(1)(B) of the LMR requires an initial walking pattern spacing of 25 feet, then 100 feet once consistent compliance is demonstrated and maintained.

Recordkeeping and Reporting Requirements

The Guidelines require recordkeeping provisions for the landfill and GCCS design; GCCS monitoring data; performance test data; and emissions related data. Reporting is required for a design capacity report, amended design capacity report, design plan, closure notification, equipment removal report, annual report, NMOC emission rate report, and an initial performance test report.

As illustrated in Appendix E, the LMR requires similar recordkeeping provisions for the landfill and GCCS design; GCCS monitoring data; performance test data; and emissions related data. Reporting provisions required by the LMR include a waste-in-place (WIP) report, landfill gas heat input capacity (HIC) report, design plan, amended design plan, closure notification, equipment removal report, annual report, and an initial performance test report, in addition to an annual source test report; which is more stringent than the Guidelines.

4. Legally Enforceable Increments of Progress Toward Compliance

Rules or other mechanisms developed by the states to implement the Guidelines must include enforceable compliance dates for submitting the final control plan, awarding contracts for construction of the GCCS, initiating on-site construction or installation of the GCCS, completing on-site construction or installation of the GCCS, and final compliance. The LMR, already in force, has already moved all covered landfills toward compliance as all of these landfills were already required to install a GCCS.

The Guidelines require that:

- MSW landfills having a design capacity of ≤ 2.5 million Mg by mass and 2.5 million m³ by volume, must submit an initial design capacity report within 90 days of the U.S. EPA approved State Plan.

- MSW landfills having a design capacity of ≥ 2.5 million Mg by mass and 2.5 million m^3 by volume, must submit a NMOC emission rate report within 90 days of the U.S. EPA approved State Plan.
- A Design Plan must be submitted within one year after determining NMOC emission rate is ≥ 34 Mg/yr (or ≥ 50 Mg/yr for closed landfill subcategory).
- If a MSW landfill has a design capacity of ≥ 2.5 million Mg by mass and 2.5 million m^3 by volume, a GCCS must be installed:
 - Within 30 months after NMOC emission rate is ≥ 34 Mg/yr, or within 30 months after NMOC emission rate is 50 Mg/yr for closed landfill subcategory; or
 - Within 30 months after the date of the most recent NMOC emission rate is ≥ 34 Mg/yr, or Tier 4 surface emissions monitoring shows a surface methane emission measurement of ≥ 500 ppmv.
- Initial Performance Test of GCCS within 180 days from initial startup.

The LMR has more stringent compliance timeframes, which are already being met by most landfills. The compliance timeframes require:

- Active MSW landfills having <450,000 tons of WIP, must submit a WIP report within 90 days of effective date of the LMR.
- MSW landfills having $\geq 450,000$ tons of WIP or upon reaching 450,000 tons of WIP, must submit a landfill gas HIC report within 90 days of effective date of the LMR and annually thereafter if the HIC is ≥ 3.0 million British thermal units per hour (MMBtu/hr).
- MSW landfills that have not yet installed a GCCS must submit a Design Plan by June 17, 2011; or within one year after determining landfill gas HIC is ≥ 3.0 MMBtu/hr; or within one year of detecting any leak on the landfill surface > 200 ppmv pursuant to the surface methane demonstration test.
- MSW landfills having a WIP of $\geq 450,000$ tons and gas HIC of ≥ 3.0 MMBtu/hr, must install a GCCS within the following timeframe after approval of the Design Plan:
 - 18 months for active MSW landfills.
 - 30 months for closed or inactive MSW landfills.

- MSW landfills must conduct Initial Performance Test of the GCCS within 180 days from the initial start-up and annually thereafter. Testing is allowed to be performed every three years if specified conditions are met.

5. Source and Emission Inventories

The State Plan must contain a complete source and emissions inventory of existing MSW landfills in California that are regulated by the Guidelines. The source inventory must include all existing MSW landfills that have accepted waste since November 8, 1987. For the purpose of the State Plan, the source inventory must include MSW landfills with design capacities above the 2.5 million Mg by mass and 2.5 million m³ by volume, along with the names and locations of the landfills, and their design capacities if this information is available.

The emission inventory must provide estimates of the NMOC emissions from the large MSW landfills that are subject to the Guidelines. These requirements are met by Appendix C, which contains source and emissions inventory information for MSW landfills in California that are subject to the Guidelines as identified by U.S. EPA and the districts.

Additional information on California landfills is available in the California Department of Resource Recovery and Recycling's (CalRecycle) Solid Waste Information System (SWIS) database. Users are able to query SWIS on multiple parameters. The database is updated continuously and is located at:
<http://www.calrecycle.ca.gov/SWFacilities/Directory/Search.aspx>.

6. Annual Emission Reporting and Progress Reports

40 CFR Part 60, Subpart B, sections 60.25 (a), (e) and (f) require state plans to provide for the submittal of annual progress reports to U.S. EPA on the status of enforcing the Guidelines. Each progress report must include summaries of enforcement actions taken and the progress made on each, a list of designated facilities that have ceased operation during the reporting period, updated NMOC emission inventories for MSW landfills that are subject to the Guidelines, and copies of technical reports on all performance testing and compliance information.

ARB believes that the annual progress reporting requirements can be satisfied through the annual reports received from the districts that signed the MOU to implement and enforce the LMR, and MSW landfills that are subject to the LMR. ARB will aggregate and submit these reports.

MOU District Annual Reporting

Districts that have signed an MOU to implement and enforce the LMR are required to submit annual reports to ARB summarizing:

- Any Notice of Violations (NOV) or other citations issued by the district specifying the issue date, landfill name, and section of the LMR cited for each NOV or other citation.
- The total number of instantaneous surface methane readings of 200 ppmv or greater pursuant to sections 95470(a)(1)(D) and 95471(c)(2)(A) of the LMR.
- A summary of alternative compliance options approved by the district pursuant to section 95468 for sections 95464, 95469, and 95471 of the LMR. The district must provide the landfill name, address, nature of request, approval date, and section of the LMR cited for each alternative compliance option approved.
- The emission data required in section 95470(b)(3)(A) through 95470(b)(3)(I) of the LMR for each landfill since the previous annual report, except a topographic map of the landfill need only be submitted on a one-time basis.

Twenty-three districts have signed MOUs. ARB implements and enforces the LMR in those districts that have not signed an MOU.

Annual Reports

Section 95470 of the LMR requires MSW landfill owners and operators to submit an annual report for the period of January 1 through December 31 of each year. The annual report must contain detailed information about the landfill design, including GCCS monitoring data; performance test data; and emissions related data. Additionally, there are some specific reports that may be submitted under specific conditions, such as a WIP report for landfills with less than 450,000 tons of WIP or a closure notification report for landfills that are ceasing waste acceptance and closing. Any landfill seeking to decommission the GCCS must submit an equipment removal report. These reporting requirements are similar to the Guidelines' requirements. Again, ARB commits, as part of this State Plan, to aggregate and submit these reports in cooperation with the districts and regulated landfills.

7. Public Participation

The State Plan and U.S. EPA's general regulations for state plan submittals require that noticed public hearings be held on proposed compliance plans and that the state certify that such hearings have been held, and that all interested parties were notified at least 30 days prior to the date of the hearing. The certification submittal must include a list of all witnesses who offered testimony at the hearings, their organizational affiliations, and a brief summary of each presentation or submission.

On January 10, 2017, after providing notice on December 28, 2016, ARB held a public meeting to discuss California's strategy for compliance with U.S. EPA's new federal requirements for MSW landfills. Notice was provided to the public and all interested parties via internet list serves, email, interagency working group meetings, and

telephone communications.¹² ARB presented two paths for compliance with the Guidelines: (1) using the LMR as California's State Plan, and (2) districts revising their existing rules to comply with the Guidelines.

ARB regularly consulted with the districts, the California Air Pollution Control Officers Association (CAPCOA), and solid waste industry representatives. ARB has received comments from both the districts and the solid waste industry supporting the approach taken in this State Plan.

On May 25, 2017, ARB held a second public meeting to discuss ARB's intentions to submit the LMR as California's State Plan. The notice for this meeting along with this State Plan was released on April 24, 2017. ARB also sent the notice and State Plan to U.S. EPA and the districts.

A summary of the comments that were received from the January and May public meetings, including witness names and affiliations, is provided in Appendix D.

ARB hereby certifies that it held a public meeting that was held in accordance with the notice required by paragraph (d) of 40 CFR Part 60, Subpart B section 60.23.

8. Process for Review and Approval of Site-Specific Gas Collection and Control System Design Plans

The State Plan must include a process for the review and approval of site-specific design plans for the required GCCS.¹³ If a landfill's NMOC emissions equal or exceed 34 Mg per year (50 Mg per year for a landfill in the closed subcategory), the landfill owner or operator must submit a site-specific design plan within one year to comply with the Guidelines.¹⁴ The plan must also meet the design specifications for active collection systems or include alternative provisions.¹⁵ This requirement will be satisfied through the LMR and implemented by the districts. The Air Pollution Control Officer (APCO) has the authority to review and to approve or disapprove the site-specific design plans under the LMR and any alternative provisions. In addition, Title V and district operating permit procedures provide for review and approval of permit terms and conditions including site-specific design plan provisions.

¹² See 40 CFR Part 60, Subpart B, § 60.23.

¹³ See 40 CFR § 60.38f(d).

¹⁴ *Ibid.*

¹⁵ See 40 CFR §§ 60.40f and 60.38f(d).

III.

ENVIRONMENTAL ANALYSIS

Introduction

This chapter provides the basis for ARB's determination that the proposed State Plan is exempt from the requirements of the California Environmental Quality Act (CEQA).¹⁶ A brief explanation of this determination is provided in section B below. ARB's regulatory program, which involves the adoption, approval, amendment, or repeal of standards, rules, regulations, or plans for the protection and enhancement of the State's ambient air quality, has been certified by the California Secretary for Natural Resources under Public Resources Code section 21080.5 of CEQA. Public agencies with certified regulatory programs are exempt from certain CEQA requirements, including but not limited to, preparing environmental impact reports, negative declarations, and initial studies. ARB, as a lead agency, prepares a substitute environmental document (referred to as an "Environmental Analysis" or "EA") as part of the State Plan prepared for a proposed action to comply with CEQA.¹⁷ If the State Plan is finalized, a Notice of Exemption will be filed with the Office of the Secretary for the Natural Resources Agency and the State Clearinghouse for public inspection.

Analysis

ARB has determined that the proposed State Plan is exempt from CEQA under the "general rule" or "common sense" exemption.¹⁸ The common sense exemption states a project is exempt from CEQA if "the activity is covered by the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA." The proposed State Plan makes a previously analyzed, adopted, and state-enforced California regulation federally enforceable, which is administrative in nature. The continued implementation of an already existing regulation has no potential to adversely affect air quality or any other environmental resource area. Based on ARB's review it can be seen with certainty that there is no possibility that the proposed State Plan may result in a significant adverse impact on the environment; therefore, this activity is exempt from CEQA.

¹⁶ Cal. Code Regs., tit. 14, § 15251(d).

¹⁷ Cal. Code Regs., tit. 17, §§ 60000-60008.

¹⁸ Cal. Code Regs., tit. 14, §15061(b)(3)).

IV.

APPENDICES

- Appendix A: Landfill Methane Regulation
- Appendix B: 1993 and 1997 Attorney General's Certification of Legal Authority
- Appendix C: Municipal Solid Waste Landfills Affected by the Emission Guidelines
- Appendix D: Public Meeting Notices and Summary of Public Comments
- Appendix E: Comparison of the Major Provisions of the Emission Guidelines and California's Landfill Methane Regulation
- Appendix F: Emissions Reductions from California's Landfill Methane Regulation Beyond the Emission Guidelines
- Appendix G: Memoranda of Understanding (MOU) Between California Air Resources Board and Districts Regarding Implementation and Enforcement of Regulation to Reduce Methane Emissions from Municipal Solid Waste Landfills
- Appendix H: Relevant Legal Authorities
- Appendix I: Resolution 17-16

*Note: the State Plan and associated appendices are located at:
<https://www.arb.ca.gov/cc/landfills/landfills.htm> under the "California's State Plan" section.



Air Resources Board



Matthew Rodriquez
Secretary for
Environmental Protection

Mary D. Nichols, Chair
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Sacramento, California 95812 • www.arb.ca.gov

Edmund G. Brown Jr.
Governor

May 30, 2017

Ms. Alexis Strauss
Acting Regional Administrator
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, California 94105

RE: Submission of California's State Plan for Compliance with the Federal Emission Guidelines for Municipal Solid Waste Landfills

Dear Ms. Strauss:

The California Air Resources Board (ARB or "Board") is submitting the California State Plan to Implement the Emission Guidelines and Compliance Timelines for Municipal Solid Waste Landfills (State Plan) pursuant to 40 CFR Part 60, Subpart Cf ("Landfill Emission Guidelines" or "Subpart Cf").

As a world leader in addressing air quality and climate change, ARB fully supports the intent of U.S. Environmental Protection Agency's (U.S. EPA) Landfill Emission Guidelines to reduce the greenhouse gas and criteria pollutant emissions. Half of these emissions from landfills are methane – a potent short-lived climate pollutant with a global warming potential 72 times that of carbon dioxide over 20 years.

Recognizing the importance of immediate action to reduce landfill methane emissions, ARB's first Scoping Plan,¹ written in response to the California Global Warming Solutions Act of 2006,² identifies methane reductions from landfills as a priority discrete early action measure. As a result, ARB adopted a statewide Landfill Methane Regulation³ (LMR), which became effective June 17, 2010. Staff estimates that the LMR regulates an additional 30 landfills in California beyond those subject to Subpart Cf. These additional landfills result in 91,193 metric tons of CO₂e per year⁴ of greenhouse gas reductions beyond what could be realized from implementation of

¹ California Air Resources Board, *Climate Change Scoping Plan* (2008) available at https://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf.

² Health & Saf. Code § 38500, et seq., Assembly Bill 32 (Nunez, ch. 488, Stats. of 2006).

³ Methane Emissions from Municipal Solid Waste Landfills, 17 Cal. Code Regs. 95460, et seq., available at <https://www.arb.ca.gov/regact/2009/landfills09/landfillfinalfro.pdf>.

⁴ Based on 2015 Emissions.

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.

California Environmental Protection Agency

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Subpart Cf alone. Because of this, ARB is submitting the LMR as its compliance strategy to comply with the plan submittal requirements of Subpart Cf.

The LMR parallels many of Subpart Cf's substantive requirements; both regulations contain monitoring requirements, test methods and procedures, recordkeeping and reporting requirements, emission guidelines, provisions requiring the installation of a gas collection and control system to control landfill gas, operational standards, a compliance timeline, and penalty provision. However, substantively and as applied, the LMR imposes more stringent requirements and provides greater emission reduction benefits over a broader scope of regulated landfills.

The Board recently approved the *Short-Lived Climate Pollutant Reduction Strategy*,⁵ which includes targets to reduce the level of the statewide disposal of organics in landfills by 50 percent by 2020 from 2014 levels, and 75 percent by 2025 from 2014 levels. We anticipate this measure will result in reductions of 4 million metric tons of CO₂ equivalent in 2030. Our 2017 Climate Change Scoping Plan Update⁶ highlights our past accomplishments and additional work that must continue in the waste management sector to reduce greenhouse gas emissions.

ARB believes in the positive synergistic results that national and state governments can achieve when we tackle issues together in a cooperative fashion. U.S. EPA has historically recognized California for its strong leadership role in reducing air pollutants and addressing the effects of climate change and has often modeled its own efforts after California's. Our partnership has resulted in significant human health and welfare protections and progress towards meeting our mutual climate change goals. We are happy to work with U.S. EPA to ensure that the federal and state rules work well together. We also believe that California's LMR can be a model to illustrate what the rest of the nation can achieve.

Thank you for this opportunity to submit California's State Plan. We agree that significantly reducing landfill gas emissions is critical to achieve the greenhouse gas reductions needed to turn back the tide of climate change, and hope that California's submittal will help U.S. EPA advance its climate change goals.


⁵ California Air Resources Board, *Short-Lived Climate Pollutant Reduction Strategy* (Mar. 2017) available at https://www.arb.ca.gov/cc/shortlived/meetings/03142017/final_slcp_report.pdf.

⁶ California Air Resources Board, *The 2017 Climate Change Scoping Plan Update* (Jan. 2017) available at https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf.

Ms. Alexis Strauss
Regional Acting Administrator
Page 3

If you have any questions concerning this submittal, please contact me at (916) 322-7077, or by email at richard.corey@arb.ca.gov, or Shannon Martin Dilley, Counsel, at (916) 322-3940, or by email at shannon.dilley@arb.ca.gov.

Sincerely,



Richard W. Corey
Executive Officer

cc: Shannon Martin Dilley, Counsel
Legal Office

Ms. Alexis Strauss
Regional Acting Administrator
Page 4

bcc: (via email)

Edie Chang, EO

Kurt Karperos, EO

Ellen M. Peter, Legal Office

Aron Livingston, Legal Office

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To: Jordan, Deborah[Jordan.Deborah@epa.gov]; Adams, Elizabeth[Adams.Elizabeth@epa.gov]; Lakin, Matt[Lakin.Matthew@epa.gov]
Cc: Miller, Amy[Miller.Amy@epa.gov]; Zito, Kelly[ZITO.KELLY@EPA.GOV]
From: Strauss, Alexis
Sent: Fri 5/19/2017 3:57:43 PM
Subject: FW: OAR weekly report
[OAR Weekly Report 051817.docx](#)
[ATT00001.htm](#)

From: Dunham, Sarah
Sent: Thursday, May 18, 2017 4:21 PM
To: Weekly Report Group <Weekly_Report_Group@epa.gov>
Cc: Gunasekara, Mandy <Gunasekara.Mandy@epa.gov>; Shaw, Betsy <Shaw.Betsy@epa.gov>; Lewis, Josh <Lewis.Josh@epa.gov>; Millett, John <Millett.John@epa.gov>; Drinkard, Andrea <Drinkard.Andrea@epa.gov>; Strauss, Alexis <Strauss.Alexis@epa.gov>; Thomas, Deb <thomas.debrah@epa.gov>; Kavlock, Robert <Kavlock.Robert@epa.gov>; Kaplan, Robert <kaplan.robert@epa.gov>; Coleman, Sam <Coleman.Sam@epa.gov>
Subject: OAR weekly report

OAR Weekly Report

May 18, 2017

Upcoming Hot Issues and Important Deadlines

· **Exceptional Events Demonstrations:** By May 31, we intend to approve two requests to exclude ozone monitoring data affected by exceptional events. Concurrences by the Agency on these demonstrations will be the first for ozone-related events under the revised exceptional events rule.

o The Ute Indian Tribe of the Uintah and Ouray Reservation claimed that a stratospheric ozone intrusion caused exceedances of the 2015 ozone standard in June 2015 at four tribal ozone monitors in the Uinta Basin and asked that these data not be used for regulatory purposes. Region 8 provided the necessary technical demonstration and OAR will sign the concurrence letter.

o The Washoe County Health District submitted exceptional events demonstrations for wildfire ozone events that caused exceedances of the 2015 ozone standard in August 2015 and July 2016 at a monitor in Reno, Nevada. Region 9 will sign the concurrence letter.

· **Scientific Advisory Board (SAB) Review of Risk and Technology Review (RTR) Screening Methodologies:** On May 26, 2017, OAR will request that the SAB conduct a peer review of specific enhancements we have made to our air toxics risk assessment methods. This report describes specific screening methodologies that have evolved since the SAB last reviewed the RTR risk assessment methods in 2009. The screening methodologies are used to quickly identify those facilities in particular RTR source categories that have little potential for human health multipathway or environmental risk, while also identifying those facilities where a refined multipathway or environmental risk assessment may be needed.

Upcoming Meetings, Public Events, or Other Public Releases

· **EPA Clean Air Scientific Advisory Committee Secondary (CASAC) NAAQS Review Panel for Oxides of Nitrogen and Sulfur:** On May 24-25, 2017, the CASAC Secondary NAAQS Review Panel for Oxides of Nitrogen and Sulfur will peer review EPA's first draft of the Integrated Science Assessment (ISA) for Oxides of Nitrogen, Oxides of Sulfur, and Particulate Matter – Ecological Criteria. Following this review, ORD will produce a second draft ISA addressing the comments received from the CASAC panel and the public. The ISA, when final, will provide the scientific basis for the decision regarding the adequacy of the current secondary standards for ecological effects of oxides of nitrogen, oxides of sulfur and particulate matter.

· **Don't Fry Day 2017:** On the Friday before Memorial Day – the unofficial start of summer – EPA will have a banner announcement on the website encouraging Americans to be sun-safe.

Upcoming Decisions

· **For Administrator's signature - Stay Notices for Municipal Solid Waste (MSW) Landfills New Source Performance Standards (NSPS) and Emission Guidelines (EG):** EPA is initiating a review of the 2016 MSW Landfill NSPS and EG. We are working on two notices: the first is a 3-month stay (using authority in Clean Air Act section 307) and we are aiming for signature on it by the end of this week. The second notice will be a proposal to extend the stay for additional time beyond 3 months (this notice should be to the Administrator's office next week).

· **For Administrator's signature – Stay Notices for Oil and Natural Gas New Source Performance Standards (NSPS):** EPA is initiating a review of the 2016 Oil and Natural Gas NSPS, as directed by the President in Executive Order 13783. In the near term, we will be moving two stay notices forward for the Administrator's signature. The first of the notices will be a 3-month stay (using authority in Clean Air Act section 307) of the fugitive emissions requirements in the rule, which are scheduled to go into effect on June 3, 2017. The second of the notices will be a proposal to extend the stay for additional time beyond the 3 months and to expand the scope of the issues being stayed. We anticipate the notices will be to the Administrator's office for review/signature next week so that they can be signed and published in the Federal Register by June 2.

· **For Administrator's signature – Wuapaca Foundry Title V Petition**
Response: This is an Order denying a petition from a private citizen requesting that EPA object to a title V operating permit issued to two foundry plants located in Wuapaca, Wisconsin.

· **For Administrator's signature – Bunge North America, Inc. Title V Petition**
Response: This is an Order responding to a petition from two citizens requesting that EPA object to a title V operating permit issued to the Bunge Grain Elevator in Louisiana.

Recap of the Past Weeks

· **Implementing E.O. 13777:** On Monday, OAR submitted to EPA's Regulatory Reform Task Force its response to the request for recommendations on specific air and radiation actions that could be considered for repeal, replacement, or modification to reduce regulatory burden.

· **EPA Semi-Annual Regional Air Division Director meeting:** This week in Chicago the Air Division Directors (ADDs) from each of the EPA Regional Offices met with senior managers from across OAR. We had productive discussions on a range of air issues.

OAR Weekly Report – May 18, 2017

Upcoming Hot Issues and Important Deadlines

- **Exceptional Events Demonstrations:** By May 31, we intend to approve two requests to exclude ozone monitoring data affected by exceptional events. Concurrences by the Agency on these demonstrations will be the first for ozone-related events under the revised exceptional events rule.
 - The Ute Indian Tribe of the Uintah and Ouray Reservation claimed that a stratospheric ozone intrusion caused exceedances of the 2015 ozone standard in June 2015 at four tribal ozone monitors in the Uinta Basin and asked that these data not be used for regulatory purposes. Region 8 provided the necessary technical demonstration and OAR will sign the concurrence letter.
 - The Washoe County Health District submitted exceptional events demonstrations for wildfire ozone events that caused exceedances of the 2015 ozone standard in August 2015 and July 2016 at a monitor in Reno, Nevada. Region 9 will sign the concurrence letter.
- **Scientific Advisory Board (SAB) Review of Risk and Technology Review (RTR) Screening Methodologies:** On May 26, 2017, OAR will request that the SAB conduct a peer review of specific enhancements we have made to our air toxics risk assessment methods. This report describes specific screening methodologies that have evolved since the SAB last reviewed the RTR risk assessment methods in 2009. The screening methodologies are used to quickly identify those facilities in particular RTR source categories that have little potential for human health multipathway or environmental risk, while also identifying those facilities where a refined multipathway or environmental risk assessment may be needed.

Upcoming Meetings, Public Events, or Other Public Releases

- **EPA Clean Air Scientific Advisory Committee Secondary (CASAC) NAAQS Review Panel for Oxides of Nitrogen and Sulfur:** On May 24-25, 2017, the CASAC Secondary NAAQS Review Panel for Oxides of Nitrogen and Sulfur will peer review EPA's first draft of the Integrated Science Assessment (ISA) for Oxides of Nitrogen, Oxides of Sulfur, and Particulate Matter – Ecological Criteria. Following this review, ORD will produce a second draft ISA addressing the comments received from the CASAC panel and the public. The ISA, when final, will provide the scientific basis for the decision regarding the adequacy of the current secondary standards for ecological effects of oxides of nitrogen, oxides of sulfur and particulate matter.
- **Don't Fry Day 2017:** On the Friday before Memorial Day – the unofficial start of summer – EPA will have a banner announcement on the website encouraging Americans to be sun-safe.

Upcoming Decisions

- **For Administrator's signature - Stay Notices for Municipal Solid Waste (MSW) Landfills New Source Performance Standards (NSPS) and Emission Guidelines (EG):** EPA is initiating a review of the 2016 MSW Landfill NSPS and EG. We are working on two notices: the first is a 3-month stay (using authority in Clean Air Act section 307) and we are aiming for signature on it by the end of this week. The

second notice will be a proposal to extend the stay for additional time beyond 3 months (this notice should be to the Administrator's office next week).

- **For Administrator's signature – Stay Notices for Oil and Natural Gas New Source Performance Standards (NSPS):** EPA is initiating a review of the 2016 Oil and Natural Gas NSPS, as directed by the President in Executive Order 13783. In the near term, we will be moving two stay notices forward for the Administrator's signature. The first of the notices will be a 3-month stay (using authority in Clean Air Act section 307) of the fugitive emissions requirements in the rule, which are scheduled to go into effect on June 3, 2017. The second of the notices will be a proposal to extend the stay for additional time beyond the 3 months and to expand the scope of the issues being stayed. We anticipate the notices will be to the Administrator's office for review/signature next week so that they can be signed and published in the Federal Register by June 2.
- **For Administrator's signature – Wuapaca Foundry Title V Petition Response:** This is an Order denying a petition from a private citizen requesting that EPA object to a title V operating permit issued to two foundry plants located in Wuapaca, Wisconsin.
- **For Administrator's signature – Bunge North America, Inc. Title V Petition Response:** This is an Order responding to a petition from two citizens requesting that EPA object to a title V operating permit issued to the Bunge Grain Elevator in Louisiana.

Recap of the Past Weeks

- **Implementing E.O. 13777:** On Monday, OAR submitted to EPA's Regulatory Reform Task Force its response to the request for recommendations on specific air and radiation actions that could be considered for repeal, replacement, or modification to reduce regulatory burden.
- **EPA Semi-Annual Regional Air Division Director meeting:** This week in Chicago the Air Division Directors (ADDs) from each of the EPA Regional Offices met with senior managers from across OAR. We had productive discussions on a range of air issues.

To: wkino@baaqmd.gov[wkino@baaqmd.gov]
Cc: Adams, Elizabeth[Adams.Elizabeth@epa.gov]; Johnson, Kathleen[Johnson.Kathleen@epa.gov]; O'Connor, Michael[MOConnor@scsengineers.com]; Kelapanda, Achaya[AKelapanda@republicservices.com]; KCarroll2@republicservices.com[KCarroll2@republicservices.com]
From: DeLong, Haley
Sent: Wed 9/27/2017 10:39:15 PM
Subject: West Contra Costa Sanitary Landfill Closure Report
WCCSL Subpart Cf Closure Report 9-27-17.pdf

Mr. Kino,

On behalf of West Contra Costa Sanitary Landfill (Facility No. A1840), SCS Engineers is submitting the attached landfill closure report under 40 Code of Federal Regulations (CFR) Part 60 Subpart Cf. A hardcopy of the closure letter is being sent to the Bay Area Air Quality Management District Office to your attention. Please note that the EPA is copied on this email. If any additional hardcopies or documentation is needed, please let me know.

Thank you,

Haley

Haley DeLong

SCS ENGINEERS

3843 Brickway Blvd., Suite 208

Santa Rosa, CA 95403

Direct: 707-236-3788

Office: 707-546-9461 Ext. 5221

Mobile: 707-486-0803

hdelong@scsengineers.com



September 27, 2017

Bay Area Air Quality Management District
Compliance and Enforcement Division
375 Beale Street, Suite 600
San Francisco, CA 94105
(415) 749-4900

**SUBJECT: 40 CFR 60, Subpart Cf
Landfill Closure Report
West Contra Costa Sanitary Landfill (Facility No. A1840), Richmond, California**

To Whom It May Concern:

West Contra Costa Sanitary Landfill (WCCSL or landfill) is currently regulated according to the New Source Performance Standards (NSPS) under 40 Code of Federal Regulations (CFR) Part 60 Subpart WWW for municipal solid waste (MSW) landfills, as it is considered a new site under that regulation. Under the new NSPS for MSW landfills, Subpart XXX, the site is considered an existing site, and as such, will become subject to new Emissions Guidelines (EG) Rule for MSW landfills under 40 CFR Part 60 Subpart Cf, once the new Bay Area Air Quality Management District (BAAQMD or District) Emissions Guidelines (EG) Rule, is approved by the U.S. Environmental Protection Agency (EPA). Under Subpart Cf, WCCSL must submit a Landfill Closure Report within 30 days of ceasing waste acceptance. In accordance with the requirements of 40 CFR §60.38f(f), WCCSL is submitting this Landfill Closure Report to satisfy the EG reporting criteria. The last day of waste acceptance for disposal at WCCSL was September 30, 2006. Closure activities were completed in August 2010. Closure certification was approved by the Regional Water Quality Control Board on June 15, 2011; the California Department of Resource Recycling and Recovery on July 8, 2011; and the Contra Costa Health Services Department on July 12, 2011. The Certificate of Final Closure, issued pursuant to Title 27, California Code of Regulations, Section 21170, was recorded with Contra Costa County on August 4, 2011. Additional closure documentation. Including Closure Plans and Construction Quality Assurance (CQA) Reports, can be provided upon request.

This closure is intended to be permanent. Because this Landfill Closure Report is submitted on or before September 27, 2017, WCCSL is classified in the "Closed Landfill Subcategory" as defined by 40 CFR §60.41f.

The design capacity of the landfill is 13.0 million short tons. The estimated quantity of refuse-in-place at the time of closure was 12,330,387 short tons, and the landfill has completed final closure. Therefore, there is no additional capacity remaining in the landfill.

Please do not hesitate to contact Kieran Carroll, at (510) 970-7245 with any questions.

Sincerely,



Kieran Carroll
Environmental Manager
Republic Services, Inc.

cc: Achaya Kelapanda, Republic Services, Inc.

Administrator, EPA Region 9
75 Hawthorne Street #11
San Francisco, CA 94105

Enclosures:

Certification of Final Closure (Dated July 22, 2011; Recorded August 4, 2011)
CalRecycle Approval of Certification of Closure Plan (Dated July 8, 201)

When Recorded,
Please Return To:

Mr. Zach Venable
Environmental Specialist
West Contra Costa Sanitary Landfill
P.O. Box 4100
Richmond, CA 94801-0100

CONTRA COSTA Co Recorder Office
STEPHEN L. WEIR, Clerk-Recorder
DOC- 2011-0154736-00

Thursday, AUG 04, 2011 09:57:07
FRE \$0.0011

Ttl Pd \$0.00 Rcpt # 0000985158
rrc/R9/1-8

CERTIFICATION OF FINAL CLOSURE
TITLE 27, CALIFORNIA CODE OF REGULATIONS, §21170

West Contra Costa Sanitary Landfill, Inc. does hereby provide this Certification of Closure in accordance with Title 27, California Code of Regulations, §21170 as follows:

This Certification includes each of the following documents attached hereto:

1. Figure 1 identifying the areal extent of waste, and depth of waste utilizing topographic lines that identify the top elevations of waste through out the landfill, with the western plateau area reaching the permitted limit of 167 feet. The landfill occupies 152 acres and is identified on the aforementioned map as "Closed Class II Waste Disposal Area".
2. Figure 2 identifying the increments and years that a portion of the landfill was closed and capped as filling operations commenced through the life of the site. The Closure and Post Closure Maintenance Plans are maintained and located on site at WCCSL at 1 Parr Blvd, Richmond, CA 94801.
3. June 15, 2011 Regional Water Quality Control Board (RWQCB) approval of closure certification.
4. July 8, 2011 California Department of Resources Recycling and Recovery (*CalRecycle*) approval of closure certification.
5. July 12, 2011 Contra Costa Health Services Department, Environmental Health Division, approval of the closure certification

In accordance with 27 CCR §21170, WCCSL certifies as follows;

- (1) Closure was completed August 2010;
- (2) The boundaries of the landfill facility, including height and depths of the filled area, are shown in detail on attached Figures 1 and 2. Figure 2 identifies the increments and years that a portion of the landfill was closed and capped as filling operations commenced through the life of the site.
- (3) The Closure and Post Closure Maintenance Plans are maintained and located on site at WCCSL at 1 Parr Blvd, Richmond, CA 94801
- (4) Future site uses are restricted to those stated in the Post Closure Maintenance Plan, section 3.2, Uses of Property.

Dated: July 22, 2011


Zach Venable, Environmental Specialist

WEST CONTRA COSTA SANITARY LANDFILL, INC.

**DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY**801 K STREET, MS 19-01, SACRAMENTO, CALIFORNIA 95814 • (916) 322-4027 • WWW.CALRECYCLE.CA.GOV

July 8, 2011

Mr. Zach Venable
West Contra Costa Sanitary Landfill, Inc.
1 Parr Boulevard
Richmond, CA 94801

CALRECYCLE APPROVAL OF CERTIFICATION OF CLOSURE, WEST CONTRA COSTA SANITARY LANDFILL, CONTRA COSTA COUNTY, SITE NO. 07-AA-0001

The Department of Resources Recycling and Recovery (CalRecycle) completed review of the response to comments dated June 30, 2011, and Certification of Closure for the above West Contra Costa Sanitary Landfill. The Certification of Closure prepared by Questa Engineering Corporation is dated January 19, 2011, and submitted pursuant to Title 27, California Code of Regulations (27 CCR) Section 21880.

The response to comments and Certification of Closure is acceptable and meets the requirements for CalRecycle (formerly CIWMB) approval. The San Francisco Bay Regional Water Quality Control (RWQCB) approved the Certification of Closure report on June 15, 2011.

The West Contra Costa Sanitary Landfill will be formerly closed and in postclosure maintenance upon approval by the Contra Costa County Solid Waste Local Enforcement Agency (LEA) and receipt of the verification of County Recording pursuant to 21170. At that time, the operator may request release from the financial mechanism for closure in accordance with 27 CCR 21880(f).

For questions concerning the financial mechanism, please contact JoAnne Byrne at (916) 341-6397 or by email at JoAnne.Byrne@CalRecycle.ca.gov. Should you have any other questions, please contact me at 341-6319 or at Scott.Walker@CalRecycle.ca.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Walker", is written over a horizontal line.

Scott Walker, PE, CEG, Manager
Engineering Support Branch

cc: Ms. Lori Braunsreither, Solid Waste Local Enforcement Agency (LEA)
Mr. Terry Seward, San Francisco Bay Regional Water Quality Control Board
Mr. Anthony Pelletier, Republic Services



Linda S. Adams
Acting Secretary for
Environmental Protection

California Regional Water Quality Control Board

San Francisco Bay Region

1515 Clay Street, Suite 1400, Oakland, California 94612
(510) 622-2300 • Fax (510) 622-2460
<http://www.waterboards.ca.gov/sanfranciscobay>



Edmund G. Brown, Jr.
Governor

Date: June 15, 2011
CIWQS ID No. 298054

Sent Via Email

West Contra Costa Sanitary Landfill, Inc.
Attn: Zachary Venable
1 Parr Boulevard
Richmond, CA 94801
Email: ZVenable@republicservices.com

Subject: Concurrence with Construction Quality Assurance Report for West Contra Costa Sanitary Landfill Final Cap, Class II Sites, Contra Costa County, CA

Dear Mr. Venable:

Water Board staff have reviewed and concur with the subject Construction Quality Assurance (CQA) Report submitted by West Contra Costa Sanitary Landfill (Landfill), dated January 19, 2011. The CQA Report was submitted for agency review of the final cover systems in the Class II areas of the landfill.

The CQA Report describes that the site's final cover design meets regulations defined under 27 CCR, Division 2, Chapter 4, and Federal nonhazardous municipal solid waste landfill regulations, as specified in 40 CFR Parts 257 and 258 (also known as Subtitle D) for Class II landfills. The final cover system of the landfill is consistent with Order No. R2-2002-0066.

Construction of the Class II final cap described in this report began in 2007 and was completed in 2010. Construction was performed in accordance with project Drawings, Specifications, and Construction Quality Assurance Plan located in the approved Closure Plan appendices.

If you have any questions, please contact Vic Pal at (510) 622-2403 or by email at VPal@waterboards.ca.gov.

Sincerely,

Terry Seward, Chief
Groundwater Protection Division

Cc:

Scott Walker, PE, CEG, Manager
Engineering Support Branch
California Department of Resources Recycling and Recovery (CalRecycle)
1001 I Street
Sacramento, CA 95814

Lori Braunesreither, REHS
Contra Costa County Health Services Department
Environmental Health Division
2120 Diamond Blvd., Suite 200
Concord, CA 94520

WILLIAM B. WALKER, M.D.
HEALTH SERVICES DIRECTOR
RANDALL L. SAWYER
CHIEF ENVIRONMENTAL HEALTH & HAZMAT OFFICER
MARILYN C. UNDERWOOD, PH.D. REHS
DIRECTOR OF ENVIRONMENTAL HEALTH



CONTRA COSTA
ENVIRONMENTAL HEALTH

2120 Diamond Blvd., Suite 200
Concord, California 94520
Ph (925) 692-2500
Fax (925) 692-2502
www.cocoeh.org

July 12, 2011

Zach Venable
West Contra Costa Sanitary Landfill
PO Box 4100
Richmond, California 94804-0100

Subject: *LEA Approval of Certification of Closure
West Contra Costa Sanitary Landfill, Facility No. 07-AA-0001*

Dear Mr. Venable:

Contra Costa Environmental Health Local Enforcement Agency (LEA) has completed its review of your June 30, 2011 Closure Certification Response Document for the final closure of West Contra Costa Sanitary Landfill (WCCSL) and finds that it meets the closure requirements of Title 27 of the California Code of Regulations.

The Certification of Closure was *approved* by the Department of Resources Recycling and Recovery (CalRecycle) on July 8, 2011, and *approved* by the San Francisco Bay Regional Water Quality Control Board on June 15, 2011.

The LEA hereby *approves* the Certification of Closure for WCCSL. Please provide verification of the County Recording to the LEA within five (5) days of filing.

Should you have any questions, please contact me at (925) 692-2528.

Sincerely,

Lori Braunesreither, REHS
Environmental Health Specialist II

cc: Joe Doser, Supervising Environmental Health Specialist
Scott Walker, Department of Resources Recycling and Recovery
Frank Davies, Department of Resources Recycling and Recovery
Terry Seward, San Francisco Bay Regional Water Quality Control Board
Peter Nuti, West Contra Costa Sanitary Landfill
Lochlin Caffey, West Contra Costa Sanitary Landfill
Anthony Pelletier, Republic Services

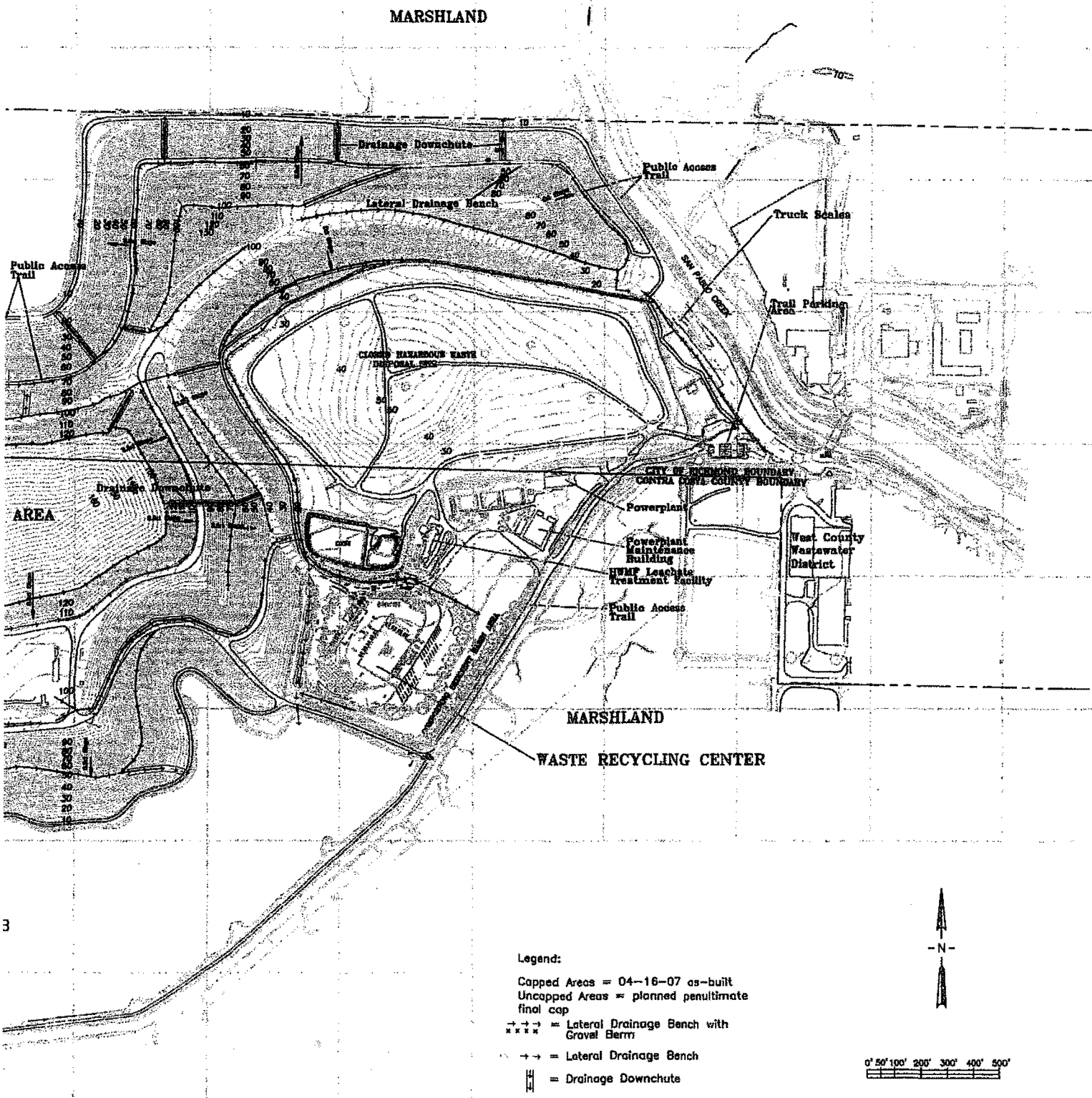
LB:lj



• Contra Costa Community Substance Abuse Services • Contra Costa Emergency Medical Services • Contra Costa Environmental Health • Contra Costa Health Plan •
• Contra Costa Hazardous Materials Programs • Contra Costa Mental Health • Contra Costa Public Health • Contra Costa Regional Medical Center • Contra Costa Health Centers •

ED_001764_00000008-00007

FIGURE 1



LAND

Large-Sized Drawings

Quadrant	CP Figure PCP figure	CP\PCP Map
NW	2.1.2-B1 3.1.1-B1	7B-1
NE	2.1.2-B2 3.1.1-B2	7B-2
SW	2.1.2-B3 3.1.1-B3	7B-3
SE	2.1.2-B4 3.1.1-B4	7B-4

WEST CONTRA COSTA SANITARY LANDFILL

SCALE: GRAPHIC

CP/PCP MAP 7B

DRAWN BY: ZD

DATE: APR. 2009

CP Figure 2.1.2-B
PCP Figure 3.1.1-B

W05-NEW-PENU-S1B4

PENULTIMATE FINAL GRADING PLAN

RDSI Figure III.A-6

RDSI Drawing 3B

FDIP Figure 1B

CITY OF RICHMOND BOUNDARY
CONTRA COSTA COUNTY BOUNDARY

SAN PABLO BAY

SAN PABLO BAY

CONTRA COSTA
COUNTY BOUNDARY
CITY OF RICHMOND BOUNDARY

CLOSED CLASS II WASTE DISPOS

Public Access
Trail

SAN PABLO BAY

ARI
(Po

MAI

W05-NEW-PENU-SIB4-1114-04-15-09.

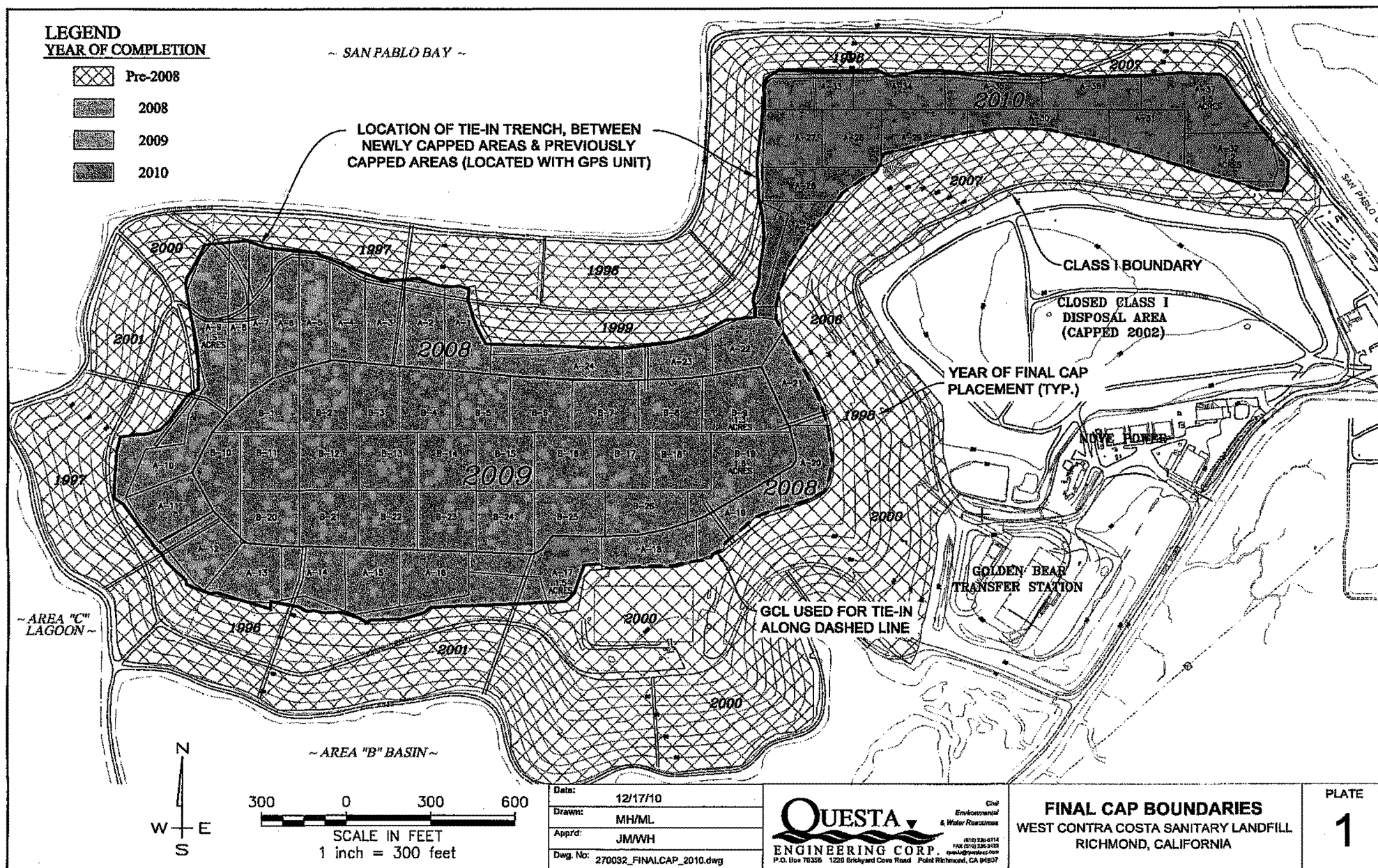


FIGURE 2

**DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY**801 K STREET, MS 19-01, SACRAMENTO, CALIFORNIA 95814 • (916) 322-4027 • WWW.CALRECYCLE.CA.GOV

July 8, 2011

Mr. Zach Venable
West Contra Costa Sanitary Landfill, Inc.
1 Parr Boulevard
Richmond, CA 94801

CALRECYCLE APPROVAL OF CERTIFICATION OF CLOSURE, WEST CONTRA COSTA SANITARY LANDFILL, CONTRA COSTA COUNTY, SITE NO. 07-AA-0001

The Department of Resources Recycling and Recovery (CalRecycle) completed review of the response to comments dated June 30, 2011, and Certification of Closure for the above West Contra Costa Sanitary Landfill. The Certification of Closure prepared by Questa Engineering Corporation is dated January 19, 2011, and submitted pursuant to Title 27, California Code of Regulations (27 CCR) Section 21880.

The response to comments and Certification of Closure is acceptable and meets the requirements for CalRecycle (formerly CIWMB) approval. The San Francisco Bay Regional Water Quality Control (RWQCB) approved the Certification of Closure report on June 15, 2011.

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For questions concerning the financial mechanism, please contact JoAnne Byrne at (916) 341-6397 or by email at JoAnne.Byrne@CalRecycle.ca.gov. Should you have any other questions, please contact me at 341-6319 or at Scott.Walker@CalRecycle.ca.gov.

Sincerely,

A handwritten signature in dark ink, appearing to read "Scott Walker", is written over a horizontal line.

Scott Walker, PE, CEG, Manager
Engineering Support Branch

cc: Ms. Lori Braunsreither, Solid Waste Local Enforcement Agency (LEA)
Mr. Terry Seward, San Francisco Bay Regional Water Quality Control Board
Mr. Anthony Pelletier, Republic Services



To: Adams, Elizabeth[Adams.Elizabeth@epa.gov]
Cc: McKaughan, Colleen[McKaughan.Colleen@epa.gov]; Lo, Doris[Lo.Doris@epa.gov]
From: Tax, Wienke
Sent: Wed 8/9/2017 3:31:08 PM
Subject: re: AZ meetings question
AZ Agencies agenda.081617 REV080117.docx

Just as a reminder, we brief you tomorrow at 1 pm. I've attached an annotated agenda that's still in draft in case you want more details, but below are the main topics.

Here is the external agenda for the morning meeting with ADEQ:

AGENDA – EPA – ADEQ MEETING

August 16, 2017, 9:30-11:30 am

1. Introductions
2. Recent EPA Accomplishments
3. Phoenix 2008 ozone plan
4. Miami and Hayden Update
5. Pinal and Yuma PM-10 Plan and Agricultural BMP program
6. ADEQ CAA section 105 Revised Workplan

7. MSW Landfill rule stay
8. Action Items and Next Steps

Here is the external agenda for the afternoon meeting with all agencies and tribes:

AGENDA – EPA - ARIZONA AND TRIBAL AIR AGENCIES MEETING

August 16, 2017, 1-4 pm

1. Introductions
2. EPA Accomplishments (handout)
3. Discussion of Issues
 - a. 2015 Ozone designations update
 - b. Phoenix 5% Plan – contingency measures post-Bahr; tribal PM-10 monitoring
 - c. Phoenix moderate ozone plan – contingency measures post-Bahr; 2015 exceptional event
 - d. Pinal PM10 plan – contingency measures post-Bahr; control strategy changes if any; SIP commitments for Ag BMPs (survey)
 - e. Update on NSR rules
 - f. PM10 stabilization projects – Milepost 214, Old Price Road
 - g. Lead/SO2 updates for Hayden and Miami
 - h. 2010 SO2 designations update

4. Action Items and Next Steps

-----Original Message-----

From: Adams, Elizabeth

Sent: Wednesday, August 09, 2017 8:21 AM

To: Tax, Wienke <Tax.Wienke@epa.gov>; McKaughan, Colleen

<McKaughan.Colleen@epa.gov>; BANDROWSKI, MIKE <Bandrowski.Mike@epa.gov>

Subject: AZ mtgs question

Hi- Can you please send me a few topics/context that we will cover with AZ next week. I have my update with Alexis and Debbie today at 2 pm and they will likely ask me what we are going to discuss.

Thanks so much

Elizabeth Adams

Acting Director, Air Division

US EPA Region 9

415-972-3183

Cell: 415-297-4308

To: Ashley, Jackie[Ashley.Jackie@epa.gov]; Sheppard, Andrew[sheppard.andrew@epa.gov]
From: Mills, Kathy
Sent: Wed 10/18/2017 1:18:57 PM
Subject: RE: Bhula email - Expiration of 90-day Stay (40 CFR 60 Subpart XXX)

ok

Kathy "KB Mills ~ SPPD ~ U. S. EPA, OAQPS ~ 919-541-1599

From: Ashley, Jackie
Sent: Wednesday, October 18, 2017 8:57 AM
To: Sheppard, Andrew <sheppard.andrew@epa.gov>
Cc: Mills, Kathy <Mills.Kathy@epa.gov>
Subject: RE: Bhula email - Expiration of 90-day Stay (40 CFR 60 Subpart XXX)

I'm good with this approach. KB?

Jackie Ashley - US EPA - Office of Air Quality Planning and Standards - 919-541-7664 – ashley.jackie@epa.gov

From: Sheppard, Andrew
Sent: Tuesday, October 17, 2017 3:19 PM
To: Ashley, Jackie <Ashley.Jackie@epa.gov>
Cc: Mills, Kathy <Mills.Kathy@epa.gov>
Subject: RE: Bhula email - Expiration of 90-day Stay (40 CFR 60 Subpart XXX)

We are still in discussions on what to do with landfills that are subject to both XXX and WWW, but this might be a good one to reply from the Air Actions address with the NSPS paragraph for the time being:

EPA plans to align the MSW landfills NSPS reconsideration with the risk and technology review

(RTR) for this source category. EPA has a court order to complete the RTR by March 13, 2020 and the reconsideration would be finished on the same timeline. Aligning these rules will provide clarity for the regulated entities, pose less burden and add additional regulatory certainty to landfills that are covered by both of these regulations. EPA continues to consider whether additional steps could be appropriate during reconsideration. During this interim period, the NSPS is still in place (promulgated in 2016). Companies that have specific questions regarding their obligations to comply with the NSPS should contact the appropriate EPA regional office.

Thoughts?

Andy Sheppard

U.S. EPA, Sector Policies and Programs Division, OAQPS

Natural Resources Group

(919)541-4161

From: Ashley, Jackie

Sent: Monday, September 11, 2017 10:43 AM

To: Sheppard, Andrew <sheppard.andrew@epa.gov>

Cc: Mills, Kathy <Mills.Kathy@epa.gov>

Subject: Bhula email - Expiration of 90-day Stay (40 CFR 60 Subpart XXX)

Andy –

This email came in to the AirAction account Friday. Please respond when appropriate and I can send a note back from AirAction.

Thanks!

Jackie Ashley - US EPA - Office of Air Quality Planning and Standards - 919-541-7664 – ashley.jackie@epa.gov

From: Ruhaani Bhula [<mailto:RBhula@jonesedmunds.com>]
Sent: Friday, September 08, 2017 10:36 AM
To: AirAction <AirAction@epa.gov>
Subject: Expiration of 90-day Stay (40 CFR 60 Subpart XXX)

Good Morning Mr. Peter Tsirigotis,

I have a question regarding the 90-day stay on several specific conditions of 40 CFR 60 Subpart XXX as outlined by the letter dated May 05th by the EPA.

Based on the revised rule, the 90-day stay expired on August 29, 2017. What is the expectation now for the remaining part of the year? Do we return to complying with Subpart XXX or, continue complying with Subpart WWW requirements?

In particular, compliance with the following topics are a concern:

- Liquids Recirculation Reporting: due by Sept. 27, 2017
- Submittal of revised design plan.
- Corrective action and cover penetration topics that impact Semi-Annual reporting.

I look forward to hearing from you soon.

Thank you,

Ruhaani Bhula, EI
Engineer Intern



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129 Workgroup Call – 5/23/2017

2:30-4:00 Eastern Time

Call in #: Ex. 6 - Personal Privacy

2:30 Roll Call

2:35 Rule Updates

CISWI (Nabanita)

OSWI (Nabanita)

Large/Small MWCs (Charlene)

HMIWI (Amy)

SSI (Amy)

Landfills (Andrew Sheppard)

Regions requesting update on the reconsideration of the MSW Landfill rule and how states should proceed with respect to state plans.

2:45 OSWI Issue – John Pavitt, Region 10

A remote Alaska Native Village operates an existing, very small MSW incinerator. Under OSWI's Model Rule for existing units (Subpart FFFF), 60.2993(g) exempts incinerators in isolated areas of Alaska, "if it is used at a solid waste disposal site in Alaska that is classified as a Class II or Class III municipal solid waste landfill..."

Q1: Does the exemption still apply if the landfill has reached full capacity and is closed? This landfill is closed and it will be some period of time before the State issues them a permit to expand and start burying waste again. In the meantime, the village is still burning MSW and putting the ash on a barge to haul it to another location for burial.

3:00 Landfill Question for Sources in between 34 and 50 Mg/yr

We have a source in New Hampshire that has emissions greater than 34 Mg/yr but less than 50 Mg/yr, and was previously not subject to GCCS requirements under WWW. There is no state plan or federal plan in place, and as such, no applicable requirement for the facility to do anything at this time. However, the EG is written in a way that does not acknowledge that there may be some of these "limbo" sources. For instance:

§ 60.32f Compliance times.

Planning, awarding of contracts, installing, and starting up MSW landfill air emission collection and control equipment

that is capable of meeting the Emission Guidelines under § 60.33f must be completed within 30 months after the date an NMOC emission rate report shows NMOC emissions

equal or exceed 34 megagrams per year...

NH is proposing to write into their state regulation a condition where if a source is in this situation, the 30 month clock to complete these requirements would start on the effective date of the applicable regulation. Has anyone else run into this situation? How have your states or locals handled it?

3:50 Regional Report Outs

Appointment

From: Sheppard, Andrew [sheppard.andrew@epa.gov]
Sent: 8/10/2018 5:26:13 PM
To: Sheppard, Andrew [sheppard.andrew@epa.gov]; Mary Douglas [mdouglas@4cleanair.org]; Dunkins, Robin [Dunkins.Robin@epa.gov]; Costa, Allison [Costa.Allison@epa.gov]; Castro, Grecia [Castro.Grecia@epa.gov]; Spangler, Matthew [Spangler.Matthew@epa.gov]
CC: Miller, Scott (DEQ) [MILLERS@michigan.gov]; Morgan, Dave (DEQ) [MORGAND2@michigan.gov]; 'bill.o'sullivan@dep.nj.gov' [bill.o'sullivan@dep.nj.gov]; Colby Bob (bcolby@chattanooga.gov) [bcolby@chattanooga.gov]; Palmer, Karen [Palmer.Karen@epa.gov]
Subject: Follow-up -- MSW Landfills Call with EPA - 7/11/18
Location: RTP-OAQPS-E141B/RTP-OAQPS-BLDG-E
Start: 8/13/2018 4:00:00 PM
End: 8/13/2018 4:30:00 PM
Show Time As: Tentative

Call-In Number: **Ex. 6 - Personal Privacy**

From: Mary Sullivan Douglas [mailto:mdouglas@4cleanair.org]
Sent: Friday, August 10, 2018 12:06 PM
To: Dunkins, Robin <Dunkins.Robin@epa.gov>; Sheppard, Andrew <sheppard.andrew@epa.gov>; Costa, Allison <Costa.Allison@epa.gov>
Cc: Miller, Scott (DEQ) <MILLERS@michigan.gov>; Morgan, Dave (DEQ) <MORGAND2@michigan.gov>; 'bill.o'sullivan@dep.nj.gov' <bill.o'sullivan@dep.nj.gov>; Colby Bob (bcolby@chattanooga.gov) <bcolby@chattanooga.gov>
Subject: Re: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Thanks. I have another call at 12:30, but we should be able to finish by then.

From: Dunkins, Robin <Dunkins.Robin@epa.gov>
Sent: Friday, August 10, 2018 11:50 AM
To: Mary Sullivan Douglas; Sheppard, Andrew; Costa, Allison
Cc: Miller, Scott (DEQ); Morgan, Dave (DEQ); 'bill.o'sullivan@dep.nj.gov'; Colby Bob (bcolby@chattanooga.gov)
Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Mary,
Monday at noon works for us. I will have Andy send out a meeting scheduler.

Robin Dunkins, Group Leader
Natural Resources Group
OAR/OAQPS/SPPD Mail Code: E143-03

U.S. Environmental Protection Agency
Research Triangle Park, NC 27711
919-541-5335
dunkins.robin@epa.gov

From: Mary Sullivan Douglas [<mailto:mdouglas@4cleanair.org>]
Sent: Thursday, August 09, 2018 7:29 PM
To: Dunkins, Robin <Dunkins.Robin@epa.gov>; Sheppard, Andrew <sheppard.andrew@epa.gov>; Costa, Allison <Costa.Allison@epa.gov>
Cc: Miller, Scott (DEQ) <MILLERS@michigan.gov>; Morgan, Dave (DEQ) <MORGAND2@michigan.gov>; 'bill.o'sullivan@dep.nj.gov' <bill.o'sullivan@dep.nj.gov>; Colby Bob (bcolby@chattanooga.gov) <bcolby@chattanooga.gov>
Subject: Re: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Yes, if that much time is even needed.

From: Dunkins, Robin <Dunkins.Robin@epa.gov>
Sent: Thursday, August 9, 2018 6:01 PM
To: Mary Sullivan Douglas; Sheppard, Andrew; Costa, Allison
Cc: Miller, Scott (DEQ); Morgan, Dave (DEQ); 'bill.o'sullivan@dep.nj.gov'; Colby Bob (bcolby@chattanooga.gov)
Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Mary,
Let me get back to you tomorrow on the times you listed. I'm assuming we're allocating an hour to this call, correct?

Robin Dunkins, Group Leader
Natural Resources Group
OAR/OAQPS/SPPD Mail Code: E143-03
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711
919-541-5335
dunkins.robin@epa.gov

From: Mary Sullivan Douglas [<mailto:mdouglas@4cleanair.org>]
Sent: Monday, August 06, 2018 5:32 PM
To: Dunkins, Robin <Dunkins.Robin@epa.gov>; Sheppard, Andrew <sheppard.andrew@epa.gov>; Costa, Allison <Costa.Allison@epa.gov>
Cc: Miller, Scott (DEQ) <MILLERS@michigan.gov>; Morgan, Dave (DEQ) <MORGAND2@michigan.gov>; 'bill.o'sullivan@dep.nj.gov' <bill.o'sullivan@dep.nj.gov>; Colby Bob (bcolby@chattanooga.gov) <bcolby@chattanooga.gov>
Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Hi, Robin,

I'd like to find a time when we could talk by phone, including Scott Miller and Dave Morgan of Michigan, so they can better explain the questions.

The following times would work:

Mon, August 13, between 10 a.m. and 12 noon

Wed, August 15, after 1:30 p.m.

Do any of these work for you?

Thanks.

Mary

From: Dunkins, Robin [<mailto:Dunkins.Robin@epa.gov>]
Sent: Wednesday, August 01, 2018 5:41 PM
To: Mary Sullivan Douglas; Sheppard, Andrew; Costa, Allison
Cc: Miller, Scott (DEQ)
Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Mary,
Please feel free to give me a call to discuss.

Thanks,
robin

Robin Dunkins, Group Leader
Natural Resources Group
OAR/OAQPS/SPPD Mail Code: E143-03
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711
919-541-5335
dunkins.robin@epa.gov

From: Mary Sullivan Douglas [<mailto:mdouglas@4cleanair.org>]
Sent: Tuesday, July 24, 2018 11:26 AM
To: Sheppard, Andrew <sheppard.andrew@epa.gov>; Dunkins, Robin <Dunkins.Robin@epa.gov>; Costa, Allison <Costa.Allison@epa.gov>
Cc: Miller, Scott (DEQ) <MILLERS@michigan.gov>
Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Hi, Andy, Robin and Allison,

We provided some info to our members in follow-up to the call we had on MSW Landfills. There is confusion about an issue that we hope you can address. If I can impose upon you to read this thread from the bottom,

you will have a better understanding of the questions than if I try to formulate a (possibly incorrect) synopsis. In the email at the bottom, I forwarded to our committee some info from one of our members. The emails that ensued highlight an area that could use some clarification.

Thanks for any info.

Mary

Mary Sullivan Douglas
National Association of Clean Air Agencies
444 North Capitol Street, NW, Suite 307
Washington, DC 20001
(202) 624-7864
mdouglas@4cleanair.org
www.4cleanair.org

From: Miller, Scott (DEQ) [<mailto:MILLERS@michigan.gov>]
Sent: Tuesday, July 24, 2018 10:05 AM
To: Mary Sullivan Douglas
Subject: FW: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Hi Mary,

I'm forwarding some internal correspondence related to the MSW NSPS applicability. Confusion still remains on this issue. It would be nice to get clarification from EPA.

Scott Miller
MDEQ Air Quality Supervisor
District Coordinator
Jackson District Office, 301 E Louis Glick Hwy, Jackson, MI 49201
517.416.5992

From: Morgan, Dave (DEQ)
Sent: Tuesday, July 24, 2018 9:45 AM
To: McCann, Gina (DEQ) <McCannG2@michigan.gov>; Brothers, Monica (DEQ) <BrothersM@michigan.gov>; Brunner, Julie (DEQ) <BRUNNERJ1@michigan.gov>; Deskins, Matthew (DEQ) <DESKINSM@michigan.gov>; Dickman, Rob (DEQ) <DICKMANR@michigan.gov>; Durham, Zachary (DEQ) <DurhamZ@michigan.gov>; Joseph, Robert (DEQ) <JosephR4@michigan.gov>; Kavanaugh Vetort, Diane (DEQ) <KAVANAUGHHD@michigan.gov>; Konanahalli, Irranna (DEQ) <KONANAHALLII@michigan.gov>; Lamb, Jonathan (DEQ) <LAMBJ1@michigan.gov>; Scanlan, Joseph (DEQ) <ScanlanJ@michigan.gov>; Zimmerman, Jill (DEQ) <ZimmermanJ3@michigan.gov>
Cc: Miller, Scott (DEQ) <MILLERS@michigan.gov>
Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Yes, but the QA document also says this:

A MSW landfill will no longer be covered under Subpart WWW by the way of the

NSPS program. However, although, the Subpart WWW will no longer apply, the landfill would still be covered by NESHAP AAAA, which refers to Subpart WWW. The landfill will have to comply with NESHAP AAAA up and beyond the Subpart XXX's 30-month window for the installation and startup of the collection and control system. The Subpart WWW requirements would still stand by the way of the NESHAP AAAA. The landfill will have to comply with, both, NESHAP AAAA and the Subpart XXX operational standards for collection and control system requirements, however, the most stringent of the two sets of requirements would apply.

They are trying to make a clear distinction that only one NSPS applies at a time. However, the paragraph above says that AAAA would still apply and essentially the requirements of AAAA are WWW. They then conclude that you use the most stringent requirements which all leads us back to identifying both WWW and XXX requirements in the ROPs and applying the most stringent of the two.

From: McCann, Gina (DEQ)

Sent: Tuesday, July 24, 2018 9:20 AM

To: Brothers, Monica (DEQ) <BrothersM@michigan.gov>; Brunner, Julie (DEQ) <BRUNNERJ1@michigan.gov>; Deskins, Matthew (DEQ) <DESKINSM@michigan.gov>; Dickman, Rob (DEQ) <DICKMANR@michigan.gov>; Durham, Zachary (DEQ) <DurhamZ@michigan.gov>; Joseph, Robert (DEQ) <JosephR4@michigan.gov>; Kavanaugh Vetort, Diane (DEQ) <KAVANAUGHHD@michigan.gov>; Konanahalli, Iranna (DEQ) <KONANAHALLII@michigan.gov>; Lamb, Jonathan (DEQ) <LAMBJ1@michigan.gov>; Morgan, Dave (DEQ) <MORGAND2@michigan.gov>; Scanlan, Joseph (DEQ) <ScanlanJ@michigan.gov>; Zimmerman, Jill (DEQ) <ZimmermanJ3@michigan.gov>

Cc: Miller, Scott (DEQ) <MILLERS@michigan.gov>

Subject: FW: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Hey All,

I haven't had a chance to read it all, but Erica pointed this out.

Check out the QA responses from EPA, from the first link below...

Under the NSPS program, a MSW landfill can only be subject to one NSPS; Once a modified MSW landfill becomes subject to Subpart XXX that MSW landfill is no longer subject to Subpart WWW or EG.

Gina

From: air_toxics@lists.4cleanair.org <air_toxics@lists.4cleanair.org> **On Behalf Of** Mary Sullivan Douglas

Sent: Monday, July 23, 2018 4:30 PM

To: air_toxics@lists.4cleanair.org

Subject: Follow-up -- MSW Landfills Call with EPA - 7/11/18

TO: NACAA AIR TOXICS COMMITTEE

On July 11, 2018, the NACAA Air Toxics Committee had a call with EPA staff to discuss the Risk and Technology Review for the Municipal Solid Waste Landfills NESHAP, as well as the reconsideration of the NSPS and Emission Guidelines for this source category that were amended in 2016 (see email thread below to refresh your memories). In follow-up to the call, Dan Brinsko (New York) provided the following additional information:

From: Brinsko, Dan (DEC) [mailto:dan.brinsko@dec.ny.gov]

Sent: Monday, July 16, 2018 11:53 AM

To: Mary Sullivan Douglas

Subject: NACAA/EPA MSW Landfill Call

Hi Mary,

As per the NACAA/EPA Landfill call we wanted to share the response we (i.e., Chris LaLone NYSDEC) got recently from EPA R-2 (consulting with HQ) for guidance on applicability with NSPS Subparts WWW, XXX and NESHAP AAAA. Find ~~attached~~ [linked below] three documents starting with the main document 'Landfill applicability QA.pdf' which summarizes the questions and EPA's responses. We hope this helps and leads to states finally obtaining some written guidance from EPA on this matter...

http://www.4cleanair.org/sites/default/files/Documents/Landfill_applicability_QA.pdf

http://www.4cleanair.org/sites/default/files/Documents/Subpart_XXX_Clarification_of_Compliance_Date_Email.pdf

<http://www.4cleanair.org/sites/default/files/Documents/BartonLoguidice.pdf>

Thanks,

Dan Brinsko, P.E.

Professional Engineer 1

Division of Air Resources

NYS Department of Environmental Conservation

625 Broadway, Albany NY 12233-3254

518-402-8403



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

November 9, 2018

The Honorable Delbert W. Ray, Sr.
President
Salt River Pima-Maricopa Indian Community
10005 East Osborn Road
Scottsdale, Arizona 85256

Dear President Ray:

On October 30, 2018, President Trump and the Acting Administrator of the U.S. Environmental Protection Agency (EPA), Andrew Wheeler, announced the proposed "Adopting Subpart Ba Requirements in Emission Guidelines for Municipal Solid Waste Landfills."

The proposed Municipal Solid Waste (MSW) Landfills rule changes the regulatory text to cross-reference the new implementation requirements (40 CFR part 60, subpart Ba) to align with the August 2018 proposed Affordable Clean Energy (ACE) rule, which addresses emission guidelines timing regulations. The proposed ACE rule included a new implementing regulation for Clean Air Act (CAA) section 111(d) that would change the timing requirements for the submission of state plans, EPA's review of state plans and the issuance of federal plans. In addition, the new implementing regulation would include new completeness criteria modeled after those that apply to state implementation plans submitted under CAA section 110.

In the proposed ACE rule, EPA proposed to apply these timing requirements to all "ongoing" emission guidelines already published under CAA section 111(d). In the MSW Landfills rule, EPA proposes to amend the cross-references and deadline in the MSW Landfills Emission Guidelines to align with the proposed timing requirements in the new implementing regulations for CAA section 111(d).

With the MSW Landfills rule, EPA is specifically proposing: (1) new timing requirements for MSW landfills to extend state plan submission deadlines to August 29, 2019; (2) new timing requirements for MSW landfills that would extend the timing to 2 years for EPA to promulgate a federal plan for states that fail to submit an approvable state plan; and (3) that EPA would review submitted state plans for completeness within 6 months from submission and review for approval within 12 months of the completeness review.

EPA will accept public comment on this proposal for 45 days after publication in the *Federal Register* and is finalizing plans to hold a public hearing. For more information about this proposed rule as well as instructions on how to comment, please see <https://www.epa.gov/stationary-sources-air-pollution/municipal-solid-waste-landfills-new-source-performance-standards>. Information about the public hearing, including the location, date

and time along with instructions on how to register to speak will be published in a second *Federal Register* notice.

We recognize that MSW Landfill affected facilities may be located throughout Indian country. If you believe your tribe could be affected by these proposed actions, we invite you to consult with EPA prior to the Agency issuing the final rule. Additionally, if your tribe has questions about the proposed rule, we invite you to request an informal discussion. If you would like to initiate government-to-government consultation with EPA, please contact Toni Colón at (919) 541-0069 or email at colon.toni@epa.gov. Please contact us by November 30, 2018, to request the consultation.

We request your input to assure that we develop the best rule possible. We endeavor to conduct our efforts with sensitivity to the needs and culture of your tribe and with attention to the potential impact of our actions. We look forward to hearing from you.

Sincerely,

A handwritten signature in black ink, appearing to read 'D. Cozzie', with a stylized flourish at the end.

David A. Cozzie
Acting Director
Sector Policies and Programs Division

cc: Tribal Environmental Director
Tribal Environmental Staff

Message

From: Eck, Janet [Eck.Janet@epa.gov]
Sent: 10/23/2018 5:25:33 PM
To: Dunkins, Robin [Dunkins.Robin@epa.gov]; Sheppard, Andrew [sheppard.andrew@epa.gov]; Conner, Lisa [Conner.Lisa@epa.gov]; Howard, Jodi [Howard.Jodi@epa.gov]; Costa, Allison [Costa.Allison@epa.gov]; South, Peter [South.Peter@epa.gov]; Thompson, Fred [Thompson.Fred@epa.gov]
CC: Cozzie, David [Cozzie.David@epa.gov]
Subject: FW: SIGNED: Adopting Subpart Ba Requirements in Emission Guidelines for Municipal Solid Waste Landfills
Attachments: Adopting Req in Emission Guidelines for Municipal Solid Waste Landfills 10-23-2018.pdf; FRN Landfills Subpart Ba 2060-AU33 NPRM 19Oct18.docx

Importance: High

Landfills was signed. Thanks.

From: Rush, Alan
Sent: Tuesday, October 23, 2018 1:20 PM
To: Eck, Janet <Eck.Janet@epa.gov>
Cc: Iglesias, Amber <Iglesias.Amber@epa.gov>; Cortelyou-Lee, Jan <Cortelyou-Lee.Jan@epa.gov>
Subject: FW: SIGNED: Adopting Subpart Ba Requirements in Emission Guidelines for Municipal Solid Waste Landfills
Importance: High

Janet and Jan,

Attached is the Word doc as signed by the Administrator.

Alan

From: Johnson, Laura-S
Sent: Tuesday, October 23, 2018 1:17 PM
To: Wheeler, Andrew <wheeler.andrew@epa.gov>; Jackson, Ryan <jackson.ryan@epa.gov>; Wehrum, Bill <Wehrum.Bill@epa.gov>; Shaw, Betsy <Shaw.Betsy@epa.gov>; Gunasekara, Mandy <Gunasekara.Mandy@epa.gov>; Woods, Clint <woods.clint@epa.gov>; Harlow, David <harlow.david@epa.gov>; Lyons, Troy <lyons.troy@epa.gov>; Bennett, Tate <Bennett.Tate@epa.gov>; White, Elizabeth <white.elizabeth@epa.gov>; Bodine, Susan <bodine.susan@epa.gov>; Leopold, Matt (OGC) <Leopold.Matt@epa.gov>; Bolen, Brittany <bolen.brittany@epa.gov>; Molina, Michael <molina.michael@epa.gov>; Darwin, Henry <darwin.henry@epa.gov>; Dominguez, Alexander <dominguez.alexander@epa.gov>; Konkus, John <konkus.john@epa.gov>; Fotouhi, David <Fotouhi.David@epa.gov>
Cc: Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>; Grantham, Nancy <Grantham.Nancy@epa.gov>; Richardson, RobinH <Richardson.RobinH@epa.gov>; Lewis, Josh <Lewis.Josh@epa.gov>; Hope, Brian <Hope.Brian@epa.gov>; Fonseca, Silvina <Fonseca.Silvina@epa.gov>; Lovell, Will (William) <lovell.william@epa.gov>; Henigin, Mary <Henigin.Mary@epa.gov>; Iglesias, Amber <Iglesias.Amber@epa.gov>; Kime, Robin <Kime.Robin@epa.gov>; Rush, Alan <Rush.Alan@epa.gov>; Nickerson, William <Nickerson.William@epa.gov>; Wiggins, Lanelle <Wiggins.Lanelle@epa.gov>; Pritchard, Eileen <Pritchard.Eileen@epa.gov>; Gordon, Stephen <gordon.stephen@epa.gov>; Schwab, Justin <Schwab.Justin@epa.gov>; Atkinson, Emily <Atkinson.Emily@epa.gov>; DeBell, Kevin <debell.kevin@epa.gov>; Millett, John <Millett.John@epa.gov>; Sauerhage, Maggie <Sauerhage.Maggie@epa.gov>; DeLuca, Isabel <DeLuca.Isabel@epa.gov>; Long, Pam <Long.Pam@epa.gov>; Hamilton, Sabrina <Hamilton.Sabrina@epa.gov>; Terry, Sara <Terry.Sara@epa.gov>; Tax, Wienke <Tax.Wienke@epa.gov>; Jentgen, Matthew <jentgen.matthew@epa.gov>; Lessard, Patrick <Lessard.Patrick@epa.gov>; Brachtl, Megan <Brachtl.Megan@epa.gov>; Herrington, Leigh <Herrington.Leigh@epa.gov>; Tax, Wienke <Tax.Wienke@epa.gov>; Jentgen, Matthew <jentgen.matthew@epa.gov>; Burton, Tamika <burton.tamika@epa.gov>; Block, Molly <block.molly@epa.gov>; Culligan, Kevin <Culligan.Kevin@epa.gov>; Cozzie, David <Cozzie.David@epa.gov>; Palmer, Karen <Palmer.Karen@epa.gov>; Marks, Matthew <Marks.Matthew@epa.gov>; Zenick, Elliott <Zenick.Elliott@epa.gov>; Srinivasan, Gautam <Srinivasan.Gautam@epa.gov>

Subject: SIGNED: Adopting Subpart Ba Requirements in Emission Guidelines for Municipal Solid Waste Landfills

Importance: High

Good afternoon,

Today, the Acting Administrator signed a proposed rule titled "Adopting Subpart Ba Requirements in Emission Guidelines for Municipal Solid Waste Landfills." This proposed rule amends the 2016 Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills ("MSW Landfills EG"). In a separate regulatory proposal published in the Federal Register on August 31, 2018, EPA proposed changes to modernize the old implementing regulations governing emission guidelines under a new subpart. Today's action proposes to update the cross-references in the regulatory text of the MSW Landfills EG from the old implementing regulations to the new implementing regulations to harmonize with the proposed new timing and completeness requirements for state and federal plans.

Attached is the signed and dated proposed rule. For your convenience, please go to p. 20 for the Acting Administrator's signature.

Please contact me if you have any questions.

Sincerely,

Laura

Laura S. Johnson | U.S. Environmental Protection Agency
Special Assistant, Office of the Administrator | Cell (202) 819-4941
Office (202) 566-1273 | johnson.laura-s@epa.gov

Message

From: Dunkins, Robin [Dunkins.Robin@epa.gov]
Sent: 2/14/2019 11:20:47 PM
To: Costa, Allison [Costa.Allison@epa.gov]; Sheppard, Andrew [sheppard.andrew@epa.gov]; Howard, Jodi [Howard.Jodi@epa.gov]; McLamb, Marguerite [McLamb.Marguerite@epa.gov]; Cozzie, David [Cozzie.David@epa.gov]; South, Peter [South.Peter@epa.gov]
CC: Lassiter, Penny [Lassiter.Penny@epa.gov]
Subject: FW: Request for Guidance or Enforcement Discretion on MSW Landfill NSPS
Attachments: Letter to OAR and OECA re Landfill Emissions Regulations 4843-5078-5928 v.4.pdf

FYI...

When I talked with Matt yesterday he indicated he wanted to discuss this next week if possible. I haven't had a chance to read through the details. I told him I would get back to him tomorrow about a meeting.

Robin Dunkins, Group Leader
Natural Resources Group
OAR/OAQPS/SPPD Mail Code: E143-03
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711
919-541-5335
dunkins.robins@epa.gov

From: Morrison, Matthew W. <matthew.morrison@pillsburylaw.com>
Sent: Thursday, February 14, 2019 5:43 PM
To: Wehrum, Bill <Wehrum.Bill@epa.gov>; Bodine, Susan <bodine.susan@epa.gov>
Cc: Tsirigotis, Peter <Tsirigotis.Peter@epa.gov>; Lassiter, Penny <Lassiter.Penny@epa.gov>; Dunkins, Robin <Dunkins.Robin@epa.gov>; Zenick, Elliott <Zenick.Elliott@epa.gov>; Ball, Christopher <cball2@wm.com>; Banister, Amy <ABaniste@wm.com>; Carol McCabe (CMcCabe@mankogold.com) (CMcCabe@mankogold.com) <CMcCabe@mankogold.com>; Niki Wuestenberg <niki.wuestenberg@republicservices.com>; McGuffey, Carroll Wade <mack.mcguiffey@troutman.com>
Subject: Request for Guidance or Enforcement Discretion on MSW Landfill NSPS

Dear Assistant Administrators Wehrum and Bodine,

Enclosed for your review is correspondence from the National Waste & Recycling Association, the Solid Waste Association of North America, Waste Management, and Republic Services, Inc. seeking guidance or a no action assurance regarding the upcoming May 2019 compliance deadline for the New Source Performance Standards for MSW landfills under Subpart XXX.

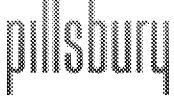
We appreciate your consideration of our request, and we would welcome the opportunity to meet with you to discuss this request at your earliest convenience.

Best regards,

Matt

Matthew W. Morrison | Partner
Pillsbury Winthrop Shaw Pittman LLP
1200 Seventeenth Street NW | Washington, DC 20036-3006
t +1.202.663.8036 | f +1.202.663.8007 | m +1.571.253.3335
matthew.morrison@pillsburylaw.com | website bio

AUSTIN BEIJING HONG KONG HOUSTON LONDON LOS ANGELES MIAMI
NASHVILLE NEW YORK NORTHERN VIRGINIA PALM BEACH SACRAMENTO
SAN DIEGO SAN DIEGO NORTH COUNTY SAN FRANCISCO SHANGHAI
SILICON VALLEY TAIPEI TOKYO WASHINGTON, DC



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Message

From: Johnson, Laura-S [Johnson.Laura-S@epa.gov]
Sent: 10/23/2018 5:17:11 PM
To: Wheeler, Andrew [wheeler.andrew@epa.gov]; Jackson, Ryan [jackson.ryan@epa.gov]; Wehrum, Bill [Wehrum.Bill@epa.gov]; Shaw, Betsy [Shaw.Betsy@epa.gov]; Gunasekara, Mandy [Gunasekara.Mandy@epa.gov]; Woods, Clint [woods.clint@epa.gov]; Harlow, David [harlow.david@epa.gov]; Lyons, Troy [lyons.troy@epa.gov]; Bennett, Tate [Bennett.Tate@epa.gov]; White, Elizabeth [white.elizabeth@epa.gov]; Bodine, Susan [bodine.susan@epa.gov]; Leopold, Matt (OGC) [Leopold.Matt@epa.gov]; Bolen, Brittany [bolen.brittany@epa.gov]; Molina, Michael [molina.michael@epa.gov]; Darwin, Henry [darwin.henry@epa.gov]; Dominguez, Alexander [dominguez.alexander@epa.gov]; Konkus, John [konkus.john@epa.gov]; Fotouhi, David [Fotouhi.David@epa.gov]
CC: Wooden-Aguilar, Helena [Wooden-Aguilar.Helena@epa.gov]; Grantham, Nancy [Grantham.Nancy@epa.gov]; Richardson, RobinH [Richardson.RobinH@epa.gov]; Lewis, Josh [Lewis.Josh@epa.gov]; Hope, Brian [Hope.Brian@epa.gov]; Fonseca, Silvina [Fonseca.Silvina@epa.gov]; Lovell, Will (William) [lovell.william@epa.gov]; Henigin, Mary [Henigin.Mary@epa.gov]; Iglesias, Amber [Iglesias.Amber@epa.gov]; Kime, Robin [Kime.Robin@epa.gov]; Rush, Alan [Rush.Alan@epa.gov]; Nickerson, William [Nickerson.William@epa.gov]; Wiggins, Lanelle [Wiggins.Lanelle@epa.gov]; Pritchard, Eileen [Pritchard.Eileen@epa.gov]; Gordon, Stephen [gordon.stephen@epa.gov]; Schwab, Justin [Schwab.Justin@epa.gov]; Atkinson, Emily [Atkinson.Emily@epa.gov]; DeBell, Kevin [debell.kevin@epa.gov]; Millett, John [Millett.John@epa.gov]; Sauerhage, Maggie [Sauerhage.Maggie@epa.gov]; DeLuca, Isabel [DeLuca.Isabel@epa.gov]; Long, Pam [Long.Pam@epa.gov]; Hamilton, Sabrina [Hamilton.Sabrina@epa.gov]; Terry, Sara [Terry.Sara@epa.gov]; Tax, Wienke [Tax.Wienke@epa.gov]; Jentgen, Matthew [jentgen.matthew@epa.gov]; Lessard, Patrick [Lessard.Patrick@epa.gov]; Brachtel, Megan [Brachtel.Megan@epa.gov]; Herrington, Leigh [Herrington.Leigh@epa.gov]; Tax, Wienke [Tax.Wienke@epa.gov]; Jentgen, Matthew [jentgen.matthew@epa.gov]; Burton, Tamika [burton.tamika@epa.gov]; Block, Molly [block.molly@epa.gov]; Culligan, Kevin [Culligan.Kevin@epa.gov]; Cozzie, David [Cozzie.David@epa.gov]; Palmer, Karen [Palmer.Karen@epa.gov]; Marks, Matthew [Marks.Matthew@epa.gov]; Zenick, Elliott [Zenick.Elliott@epa.gov]; Srinivasan, Gautam [Srinivasan.Gautam@epa.gov]
Subject: SIGNED: Adopting Subpart Ba Requirements in Emission Guidelines for Municipal Solid Waste Landfills
Attachments: Adopting Req in Emission Guidelines for Municipal Solid Waste Landfills 10-23-2018.pdf

Importance: High

Good afternoon,

Today, the Acting Administrator signed a proposed rule titled "Adopting Subpart Ba Requirements in Emission Guidelines for Municipal Solid Waste Landfills." This proposed rule amends the 2016 Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills ("MSW Landfills EG"). In a separate regulatory proposal published in the Federal Register on August 31, 2018, EPA proposed changes to modernize the old implementing regulations governing emission guidelines under a new subpart. Today's action proposes to update the cross-references in the regulatory text of the MSW Landfills EG from the old implementing regulations to the new implementing regulations to harmonize with the proposed new timing and completeness requirements for state and federal plans.

Attached is the signed and dated proposed rule. For your convenience, please go to p. 20 for the Acting Administrator's signature.

Please contact me if you have any questions.

Sincerely,
Laura

Laura S. Johnson | U.S. Environmental Protection Agency
Special Assistant, Office of the Administrator | Cell (202) 819-4941
Office (202) 566-1273 | johnson.laura-s@epa.gov

Message

To: Bird, Patrick [Bird.Patrick@epa.gov]; Bellizzi, Carol [Bellizzi.Carol@epa.gov]; Gordon, Michael [Gordon.Mike@epa.gov]; McNeal, Dave [Mcneal.Dave@epa.gov]; Sieffert, Margaret [Sieffert.Margaret@epa.gov]; Boyce, Kenneth [boyce.kenneth@epa.gov]; Casburn, Tracey [casburn.tracey@epa.gov]; Fulton, Abby [Fulton.Abbey@epa.gov]; Buss, Jeffrey [Buss.Jeffrey@epa.gov]; BECKHAM, LISA [BECKHAM.LISA@EPA.GOV]; Glass, Geoffrey [GLASS.GEOFFREY@EPA.GOV]
CC: Dunkins, Robin [Dunkins.Robin@epa.gov]
Subject: RE: States Plans for MSW Landfills Subpart Cf
Attachments: Decision and order from judge.pdf

Hello all,

We received a decision in this lawsuit on Monday, summary attached. The judge ruled that the plaintiffs have standing. He ordered for us to have 4 months to approve/disapprove already submitted state plans (by Sept. 6, 2019) within 4 months and promulgate a federal plan in 6 months (by Nov. 6, 2019). The court agreed with EPA that it has no jurisdiction over future state plan submissions. Additionally we do plan to finalize the Adopting Subpart Ba requirements action for Subpart Cf that was proposed last year. Once final, this will move the state plan due date out to August of this year and adjust our review time to

Andy Sheppard
U.S. EPA, Sector Policies and Programs Division, OAQPS
Natural Resources Group
(919)541-4161

From: Sheppard, Andrew
Sent: Monday, February 04, 2019 3:55 PM
To: Bird, Patrick <Bird.Patrick@epa.gov>; Bellizzi, Carol <Bellizzi.Carol@epa.gov>; Gordon, Michael <Gordon.Mike@epa.gov>; McNeal, Dave <Mcneal.Dave@epa.gov>; Frank, Nathan <frank.nathan@epa.gov>; Boyce, Kenneth <boyce.kenneth@epa.gov>; Casburn, Tracey <casburn.tracey@epa.gov>; Fulton, Abby <Fulton.Abbey@epa.gov>; Buss, Jeffrey <Buss.Jeffrey@epa.gov>; BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>; Narvaez, Madonna <Narvaez.Madonna@epa.gov>
Cc: Palmer, Karen <Palmer.Karen@epa.gov>
Subject: States Plans for MSW Landfills Subpart Cf
Importance: High

Hello all,

In the Cal vs EPA case regarding failure to review state plans and implement a federal plan for landfills, California has asked the court that:

- EPA Should Be Ordered to Review Existing State Plans Within Thirty Days
- EPA Should Be Ordered to Promulgate a Federal Plan Within Five Months
- EPA Should Be Ordered to Respond to Any Future State Plans Within Sixty Days of Submission
- EPA Should Be Ordered to File Status Reports Every Sixty Days

We wanted to get a sense of what state plans have been sent in officially. We know about California, New Mexico, Arizona, West Virginia and Delaware. If you have any other submitted state plans, could you please forward those to Karen (cc'd) and I along with dates that they were submitted as well as any correspondence with the states and if it's a full blown plan or just an IBR. Additionally, we wanted to gauge from each region what kind of timeline would be manageable to review and approve these plans. We want to use this information to respond to California in this case with a more do-able timeframe. We have heard from a few regions that 4 months or so would be more realistic but that

even more time would be best due to current workload. If you've already sent us this information these past couple of weeks, thanks so much! Also, if you aren't the correct contact for the region please forward to the correct person.

Please let us know in the next day or so as we have to respond to the court by February 19th.

Thanks so much!

Andy Sheppard
U.S. EPA, Sector Policies and Programs Division, OAQPS
Natural Resources Group
(919)541-4161

Appointment

From: Sheppard, Andrew [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0f7498db4b13474fa0aacd4e6b364acf-Sheppard, A]
Sent: 8/10/2018 5:26:08 PM
To: Sheppard, Andrew [sheppard.andrew@epa.gov]; Mary Sullivan Douglas [mdouglas@4cleanair.org]; Dunkins, Robin [Dunkins.Robin@epa.gov]; Costa, Allison [Costa.Allison@epa.gov]; Castro, Grecia [Castro.Grecia@epa.gov]; Spangler, Matthew [Spangler.Matthew@epa.gov]
CC: Miller, Scott (DEQ) [MILLERS@michigan.gov]; Morgan, Dave (DEQ) [MORGAND2@michigan.gov]; 'bill.o'sullivan@dep.nj.gov' [bill.o'sullivan@dep.nj.gov]; Colby Bob (bcolby@chattanooga.gov) [bcolby@chattanooga.gov]; Palmer, Karen [Palmer.Karen@epa.gov]
BCC: RTP-OAQPS-E141B/RTP-OAQPS-BLDG-E [RTP-OAQPS-E141B@epa.gov]
Subject: Follow-up -- MSW Landfills Call with EPA - 7/11/18
Location: RTP-OAQPS-E141B/RTP-OAQPS-BLDG-E
Start: 8/13/2018 4:00:00 PM
End: 8/13/2018 4:30:00 PM
Show Time As: Busy

Call-In Number

Ex. 6 - Personal Privacy

From: Mary Sullivan Douglas [mailto:mdouglas@4cleanair.org]
Sent: Friday, August 10, 2018 12:06 PM
To: Dunkins, Robin <Dunkins.Robin@epa.gov>; Sheppard, Andrew <sheppard.andrew@epa.gov>; Costa, Allison <Costa.Allison@epa.gov>
Cc: Miller, Scott (DEQ) <MILLERS@michigan.gov>; Morgan, Dave (DEQ) <MORGAND2@michigan.gov>; 'bill.o'sullivan@dep.nj.gov' <bill.o'sullivan@dep.nj.gov>; Colby Bob (bcolby@chattanooga.gov) <bcolby@chattanooga.gov>
Subject: Re: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Thanks. I have another call at 12:30, but we should be able to finish by then.

From: Dunkins, Robin <Dunkins.Robin@epa.gov>
Sent: Friday, August 10, 2018 11:50 AM
To: Mary Sullivan Douglas; Sheppard, Andrew; Costa, Allison
Cc: Miller, Scott (DEQ); Morgan, Dave (DEQ); 'bill.o'sullivan@dep.nj.gov'; Colby Bob (bcolby@chattanooga.gov)
Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Mary,
Monday at noon works for us. I will have Andy send out a meeting scheduler.

Robin Dunkins, Group Leader

Natural Resources Group
OAR/OAQPS/SPPD Mail Code: E143-03
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711
919-541-5335
dunkins.robin@epa.gov

From: Mary Sullivan Douglas [<mailto:mdouglas@4cleanair.org>]
Sent: Thursday, August 09, 2018 7:29 PM
To: Dunkins, Robin <Dunkins.Robin@epa.gov>; Sheppard, Andrew <sheppard.andrew@epa.gov>; Costa, Allison <Costa.Allison@epa.gov>
Cc: Miller, Scott (DEQ) <MILLERS@michigan.gov>; Morgan, Dave (DEQ) <MORGAND2@michigan.gov>; 'bill.o'sullivan@dep.nj.gov' <bill.o'sullivan@dep.nj.gov>; Colby Bob (bcolby@chattanooga.gov) <bcolby@chattanooga.gov>
Subject: Re: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Yes, if that much time is even needed.

From: Dunkins, Robin <Dunkins.Robin@epa.gov>
Sent: Thursday, August 9, 2018 6:01 PM
To: Mary Sullivan Douglas; Sheppard, Andrew; Costa, Allison
Cc: Miller, Scott (DEQ); Morgan, Dave (DEQ); 'bill.o'sullivan@dep.nj.gov'; Colby Bob (bcolby@chattanooga.gov)
Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Mary,
Let me get back to you tomorrow on the times you listed. I'm assuming we're allocating an hour to this call, correct?

Robin Dunkins, Group Leader
Natural Resources Group
OAR/OAQPS/SPPD Mail Code: E143-03
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711
919-541-5335
dunkins.robin@epa.gov

From: Mary Sullivan Douglas [<mailto:mdouglas@4cleanair.org>]
Sent: Monday, August 06, 2018 5:32 PM
To: Dunkins, Robin <Dunkins.Robin@epa.gov>; Sheppard, Andrew <sheppard.andrew@epa.gov>; Costa, Allison <Costa.Allison@epa.gov>
Cc: Miller, Scott (DEQ) <MILLERS@michigan.gov>; Morgan, Dave (DEQ) <MORGAND2@michigan.gov>; 'bill.o'sullivan@dep.nj.gov' <bill.o'sullivan@dep.nj.gov>; Colby Bob (bcolby@chattanooga.gov)

<bcolby@chattanooga.gov>

Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Hi, Robin,

I'd like to find a time when we could talk by phone, including Scott Miller and Dave Morgan of Michigan, so they can better explain the questions.

The following times would work:

Mon, August 13, between 10 a.m. and 12 noon

Wed, August 15, after 1:30 p.m.

Do any of these work for you?

Thanks.

Mary

From: Dunkins, Robin [<mailto:Dunkins.Robin@epa.gov>]
Sent: Wednesday, August 01, 2018 5:41 PM
To: Mary Sullivan Douglas; Sheppard, Andrew; Costa, Allison
Cc: Miller, Scott (DEQ)
Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Mary,
Please feel free to give me a call to discuss.

Thanks,
robin

Robin Dunkins, Group Leader
Natural Resources Group
OAR/OAQPS/SPPD Mail Code: E143-03
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711
919-541-5335
dunkins.robin@epa.gov

From: Mary Sullivan Douglas [<mailto:mdouglas@4cleanair.org>]
Sent: Tuesday, July 24, 2018 11:26 AM
To: Sheppard, Andrew <sheppard.andrew@epa.gov>; Dunkins, Robin <Dunkins.Robin@epa.gov>; Costa, Allison <Costa.Allison@epa.gov>
Cc: Miller, Scott (DEQ) <MILLERS@michigan.gov>
Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Hi, Andy, Robin and Allison,

We provided some info to our members in follow-up to the call we had on MSW Landfills. There is confusion about an issue that we hope you can address. If I can impose upon you to read this thread from the bottom, you will have a better understanding of the questions than if I try to formulate a (possibly incorrect) synopsis. In the email at the bottom, I forwarded to our committee some info from one of our members. The emails that ensued highlight an area that could use some clarification.

Thanks for any info.

Mary

Mary Sullivan Douglas
National Association of Clean Air Agencies
444 North Capitol Street, NW, Suite 307
Washington, DC 20001
(202) 624-7864
mdouglas@4cleanair.org
www.4cleanair.org

From: Miller, Scott (DEQ) [<mailto:MILLERS@michigan.gov>]
Sent: Tuesday, July 24, 2018 10:05 AM
To: Mary Sullivan Douglas
Subject: FW: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Hi Mary,

I'm forwarding some internal correspondence related to the MSW NSPS applicability. Confusion still remains on this issue. It would be nice to get clarification from EPA.

Scott Miller
MDEQ Air Quality Supervisor
District Coordinator
Jackson District Office, 301 E Louis Glick Hwy, Jackson, MI 49201
517.416.5992

From: Morgan, Dave (DEQ)
Sent: Tuesday, July 24, 2018 9:45 AM
To: McCann, Gina (DEQ) <McCannG2@michigan.gov>; Brothers, Monica (DEQ) <BrothersM@michigan.gov>; Brunner, Julie (DEQ) <BRUNNERJ1@michigan.gov>; Deskins, Matthew (DEQ) <DESKINSM@michigan.gov>; Dickman, Rob (DEQ) <DICKMANR@michigan.gov>; Durham, Zachary (DEQ) <DurhamZ@michigan.gov>; Joseph, Robert (DEQ) <JosephR4@michigan.gov>; Kavanaugh Vetort, Diane (DEQ) <KAVANAUGHHD@michigan.gov>; Konanahalli, Iranna (DEQ) <KONANAHALLII@michigan.gov>; Lamb, Jonathan (DEQ) <LAMBJ1@michigan.gov>; Scanlan, Joseph (DEQ) <ScanlanJ@michigan.gov>; Zimmerman, Jill (DEQ) <ZimmermanJ3@michigan.gov>
Cc: Miller, Scott (DEQ) <MILLERS@michigan.gov>
Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Yes, but the QA document also says this:

A MSW landfill will no longer be covered under Subpart WWW by the way of the NSPS program. However, although, the Subpart WWW will no longer apply, the landfill would still be covered by NESHAP AAAA, which refers to Subpart WWW. The landfill will have to comply with NESHAP AAAA up and beyond the Subpart XXX's 30-month window for the installation and startup of the collection and control system. The Subpart WWW requirements would still stand by the way of the NESHAP AAAA. The landfill will have to comply with, both, NESHAP AAAA and the Subpart XXX operational standards for collection and control system requirements, however, the most stringent of the two sets of requirements would apply.

They are trying to make a clear distinction that only one NSPS applies at a time. However, the paragraph above says that AAAA would still apply and essentially the requirements of AAAA are WWW. They then conclude that you use the most stringent requirements which all leads us back to identifying both WWW and XXX requirements in the ROPs and applying the most stringent of the two.

From: McCann, Gina (DEQ)

Sent: Tuesday, July 24, 2018 9:20 AM

To: Brothers, Monica (DEQ) <BrothersM@michigan.gov>; Brunner, Julie (DEQ) <BRUNNERJ1@michigan.gov>; Deskins, Matthew (DEQ) <DESKINSM@michigan.gov>; Dickman, Rob (DEQ) <DICKMANR@michigan.gov>; Durham, Zachary (DEQ) <DurhamZ@michigan.gov>; Joseph, Robert (DEQ) <JosephR4@michigan.gov>; Kavanaugh Vetort, Diane (DEQ) <KAVANAUGHHD@michigan.gov>; Konanahalli, Iranna (DEQ) <KONANAHALLII@michigan.gov>; Lamb, Jonathan (DEQ) <LAMBJ1@michigan.gov>; Morgan, Dave (DEQ) <MORGAND2@michigan.gov>; Scanlan, Joseph (DEQ) <ScanlanJ@michigan.gov>; Zimmerman, Jill (DEQ) <ZimmermanJ3@michigan.gov>

Cc: Miller, Scott (DEQ) <MILLERS@michigan.gov>

Subject: FW: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Hey All,

I haven't had a chance to read it all, but Erica pointed this out.

Check out the QA responses from EPA, from the first link below...

Under the NSPS program, a MSW landfill can only be subject to one NSPS; Once a modified MSW landfill becomes subject to Subpart XXX that MSW landfill is no longer subject to Subpart WWW or EG.

Gina

From: air_toxics@lists.4cleanair.org <air_toxics@lists.4cleanair.org> **On Behalf Of** Mary Sullivan Douglas

Sent: Monday, July 23, 2018 4:30 PM

To: air_toxics@lists.4cleanair.org

Subject: Follow-up -- MSW Landfills Call with EPA - 7/11/18

TO: NACAA AIR TOXICS COMMITTEE

On July 11, 2018, the NACAA Air Toxics Committee had a call with EPA staff to discuss the Risk and Technology Review for the Municipal Solid Waste Landfills NESHAP, as well as the reconsideration of the NSPS and Emission Guidelines for this source category that were amended in 2016 (see email thread below to refresh your memories). In follow-up to the call, Dan Brinsko (New York) provided the following additional information:

From: Brinsko, Dan (DEC) [mailto:dan.brinsko@dec.ny.gov]
Sent: Monday, July 16, 2018 11:53 AM
To: Mary Sullivan Douglas
Subject: NACAA/EPA MSW Landfill Call

Hi Mary,

As per the NACAA/EPA Landfill call we wanted to share the response we (i.e., Chris LaLone NYSDEC) got recently from EPA R-2 (consulting with HQ) for guidance on applicability with NSPS Subparts WWW, XXX and NESHAP AAAA. Find ~~attached~~ [linked below] three documents starting with the main document 'Landfill applicability QA.pdf' which summarizes the questions and EPA's responses. We hope this helps and leads to states finally obtaining some written guidance from EPA on this matter...

http://www.4cleanair.org/sites/default/files/Documents/Landfill_applicability_QA.pdf
http://www.4cleanair.org/sites/default/files/Documents/Subpart_XXX_Clarification_of_Compliance_Date_Email.pdf
<http://www.4cleanair.org/sites/default/files/Documents/BartonLoguidice.pdf>

Thanks,
Dan Brinsko, P.E.
Professional Engineer 1
Division of Air Resources
NYS Department of Environmental Conservation
625 Broadway, Albany NY 12233-3254
518-402-8403

Message

From: Sami Osman [sosman@climateactionreserve.org]
Sent: 8/23/2018 10:29:25 PM
To: Sheppard, Andrew [sheppard.andrew@epa.gov]
Subject: RE: NMOC emissions thresholds in Part 60 Title 40 CFR

Andy,

Hope you're well.

Thanks again for your assistance with this mate, it's been most helpful. Quick question, is there a way we can keep track of approval of state plans? Is this information published anywhere, or could/should we periodically query you regarding the same?

Thanks again mate.
Cheers!

Sami Osman

Senior Policy Manager |
Climate Action Reserve, a California Offset Project Registry

** We've moved -- please note our new address*
818 West 7th Street, Suite 710
Los Angeles, CA 90017
Direct: (213) 542-0294
Main: (213) 891-1444

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From: Sheppard, Andrew <sheppard.andrew@epa.gov>
Sent: Wednesday, August 22, 2018 12:31 PM
To: Sami Osman <sosman@climateactionreserve.org>
Subject: RE: NMOC emissions thresholds in Part 60 Title 40 CFR

Sami,

You're correct, landfills that would be subject to the Subpart Cf State Plans will continue to stay subject to whatever they're under currently, either state plan implementing Subpart Cc (1996 EG) or Subpart WWW (1996 NSPS) which both have the 50 Mg/yr threshold.

Thanks,

Andy Sheppard
U.S. EPA, Sector Policies and Programs Division, OAQPS
Natural Resources Group

(919)541-4161

From: Sami Osman [mailto:sosman@climateactionreserve.org]
Sent: Wednesday, August 22, 2018 3:11 PM
To: Sheppard, Andrew <sheppard.andrew@epa.gov>
Subject: RE: NMOC emissions thresholds in Part 60 Title 40 CFR

Andy,

You're a champion.

That makes perfect sense. The only outstanding question I guess for me is whether the lack of approved state plans means that landfills not modified after July 17, 2014, are still held to a 50Mg/year NMOC threshold?

I'd be happy to have a quick call too, if that's easier. I had a great chat with LMOP folks, they are always most helpful.

Thanks again mate.
Cheers!

Sami Osman
Senior Policy Manager |
Climate Action Reserve, a California Offset Project Registry

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Los Angeles, CA 90017
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Sami.

From: Sheppard, Andrew <sheppard.andrew@epa.gov>
Sent: Wednesday, August 22, 2018 11:11 AM
To: Sami Osman <sosman@climateactionreserve.org>
Subject: RE: NMOC emissions thresholds in Part 60 Title 40 CFR

Hey Sami,

I was also forwarded your email you sent to the AirAction account. To answer your questions from this email and that one: the entire rule is in full effect, including the new 34 Mg/yr NMOC threshold for requiring controls. Subpart XXX, the 2016 NSPS, applies to all landfills that have modified, constructed or reconstructed after July 17, 2014. The stay had no effect on the timing of compliance, so now that the stay is over, it is as if there was no stay at all, so no landfill gets any additional time for compliance due to the stay. The rule has been in effect since August 2016, so any landfill that has modified since July 17, 2014 would be required to see if they meet the design capacity threshold of 2.5 million Mg and m3 (due 90 days after modification) and if they do, they would then need to look at their NMOC levels using the tiers

specified in the rule. If the landfill's NMOC levels are above 34 Mg/yr, then they are required to install controls 30 months later.

Subpart Cf, the 2016 Emission Guidelines, requires states to submit state plans and then those plans need to be approved by EPA. Once EPA approves those state plans, all applicable landfills (those that modified prior to July 17, 2014) are required to check their design capacity/NMOC emissions in the same fashion as mentioned above.

Both XXX and Cf are under reconsideration, but currently in full effect. More information about the reconsideration can be found here: https://www.epa.gov/sites/production/files/2017-05/documents/signed_-_letter_-_municipal_solid_waste_landfills.pdf.

LMOP would definitely be the group to talk to about gas to energy.

Let me know if this helps or if you need anything else.

Thanks,

Andy Sheppard
U.S. EPA, Sector Policies and Programs Division, OAQPS
Natural Resources Group
(919)541-4161

From: Sami Osman [<mailto:sosman@climateactionreserve.org>]
Sent: Tuesday, August 21, 2018 11:23 AM
To: Sheppard, Andrew <sheppard.andrew@epa.gov>
Subject: FW: NMOC emissions thresholds in Part 60 Title 40 CFR

Hello Andy

I hope you're well!

I'm hoping to get a moment of your time to talk through NMOC thresholds for landfills. The organization I work for runs a carbon offset project, which includes incentives for landfill gas projects. I'd love to get your guidance on whether the new 34Mg/year NMOC thresholds which trigger the countdown to GCCS mandates, are currently in force. From what I can understand state plans were required to be submitted and approved for existing landfills, and parts of the rules are currently still being investigated by the EPA. It would be great to get your guidance on what the current state of play is.

Cheers!

Sami Osman
Senior Policy Manager |
Climate Action Reserve, a [California Offset Project Registry](#)

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From: Ward, Hillary <Ward.Hillary@epa.gov>
Sent: Tuesday, August 21, 2018 8:03 AM
To: Sami Osman <sosman@climateactionreserve.org>
Subject: RE: NMOC emissions thresholds in Part 60 Title 40 CFR

Hello,

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Hillary Ward
USEPA, Office of Air Quality Planning and Standards
Sector Policies and Programs Division
(919)541-3154

From: Sami Osman [<mailto:sosman@climateactionreserve.org>]
Sent: Tuesday, August 21, 2018 10:48 AM
To: Ward, Hillary <Ward.Hillary@epa.gov>
Subject: RE: NMOC emissions thresholds in Part 60 Title 40 CFR

Dear Ms. Ward,

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Thanks!

Sami Osman
Senior Policy Manager |
Climate Action Reserve, a California Offset Project Registry

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ED_001764F_00011091-00004

From: Sami Osman
Sent: Wednesday, August 8, 2018 3:21 PM
To: 'ward.hillary@epa.gov' <ward.hillary@epa.gov>
Subject: NMOC emissions thresholds in Part 60 Title 40 CFR

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ED_001764F_00011091-00005

Message

From: Sami Osman [sosman@climateactionreserve.org]
Sent: 8/22/2018 7:31:36 PM
To: Sheppard, Andrew [sheppard.andrew@epa.gov]
Subject: RE: NMOC emissions thresholds in Part 60 Title 40 CFR

Fantastic, thanks Andrew, that's very helpful.
Good man.

Cheers.

Sami Osman

Senior Policy Manager
Climate Action Reserve, a California Offset Project Registry

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Sami.

From: Sheppard, Andrew <sheppard.andrew@epa.gov>
Sent: Wednesday, August 22, 2018 12:31 PM
To: Sami Osman <sosman@climateactionreserve.org>
Subject: RE: NMOC emissions thresholds in Part 60 Title 40 CFR

Sami,

You're correct, landfills that would be subject to the Subpart Cf State Plans will continue to stay subject to whatever they're under currently, either state plan implementing Subpart Cc (1996 EG) or Subpart WWW (1996 NSPS) which both have the 50 Mg/yr threshold.

Thanks,

Andy Sheppard
U.S. EPA, Sector Policies and Programs Division, OAQPS
Natural Resources Group
(919)541-4161

From: Sami Osman [<mailto:sosman@climateactionreserve.org>]
Sent: Wednesday, August 22, 2018 3:11 PM
To: Sheppard, Andrew <sheppard.andrew@epa.gov>
Subject: RE: NMOC emissions thresholds in Part 60 Title 40 CFR

Andy,

You're a champion.

That makes perfect sense. The only outstanding question I guess for me is whether the lack of approved state plans means that landfills not modified after July 17, 2014, are still held to a 50Mg/year NMOC threshold?

I'd be happy to have a quick call too, if that's easier. I had a great chat with LMOP folks, they are always most helpful.

Thanks again mate.
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Sent: Wednesday, August 22, 2018 11:11 AM
To: Sami Osman <sosman@climateactionreserve.org>
Subject: RE: NMOC emissions thresholds in Part 60 Title 40 CFR

Hey Sami,

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Subpart Cf, the 2016 Emission Guidelines, requires states to submit state plans and then those plans need to be approved by EPA. Once EPA approves those state plans, all applicable landfills (those that modified prior to July 17, 2014) are required to check their design capacity/NMOC emissions in the same fashion as mentioned above.

Both XXX and Cf are under reconsideration, but currently in full effect. More information about the reconsideration can be found here: [https://www.epa.gov/sites/production/files/2017-05/documents/signed - letter -
municipal solid waste landfills.pdf](https://www.epa.gov/sites/production/files/2017-05/documents/signed-_letter_-_municipal_solid_waste_landfills.pdf).

LMOP would definitely be the group to talk to about gas to energy.

Let me know if this helps or if you need anything else.

Thanks,

Andy Sheppard
U.S. EPA, Sector Policies and Programs Division, OAQPS
Natural Resources Group
(919)541-4161

From: Sami Osman [<mailto:sosman@climateactionreserve.org>]
Sent: Tuesday, August 21, 2018 11:23 AM
To: Sheppard, Andrew <sheppard.andrew@epa.gov>
Subject: FW: NMOC emissions thresholds in Part 60 Title 40 CFR

Hello Andy

I hope you're well!

I'm hoping to get a moment of your time to talk through NMOC thresholds for landfills. The organization I work for runs a carbon offset project, which includes incentives for landfill gas projects. I'd love to get your guidance on whether the new 34Mg/year NMOC thresholds which trigger the countdown to GCCS mandates, are currently in force. From what I can understand state plans were required to be submitted and approved for existing landfills, and parts of the rules are currently still being investigated by the EPA. It would be great to get your guidance on what the current state of play is.

Cheers!

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From: Ward, Hillary <Ward.Hillary@epa.gov>
Sent: Tuesday, August 21, 2018 8:03 AM

ED_001764F_00011097-00003

To: Sami Osman <sosman@climateactionreserve.org>
Subject: RE: NMOC emissions thresholds in Part 60 Title 40 CFR

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(919)541-3154

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To: Ward, Hillary <Ward.Hillary@epa.gov>
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**States of California, Illinois, Maryland, New Jersey, New Mexico,
Oregon, Pennsylvania, Rhode Island, and Vermont;
and the California Air Resources Board**

January 3, 2019

Via electronic submission to www.regulations.gov
ATTN: Docket ID No. EPA-HQ-OAR-2018-0695

Andrew Wheeler
Acting Administrator
United States Environmental Protection Agency
Office of the Administrator Code 1101A
1200 Pennsylvania Ave NW
Washington, D.C. 20460

**Re: Comments on Proposed Rule, Adopting Subpart Ba Requirements in Emission
Guidelines for Municipal Solid Waste Landfills**

Dear Acting Administrator Wheeler:

The undersigned State Attorneys General and state agencies (collectively States) respectfully submit these comments opposing the United States Environmental Protection Agency's (EPA) proposed rule, Adopting Subpart Ba Requirements in Emission Guidelines for Municipal Solid Waste Landfills, 83 Fed. Reg. 54,527 (Oct. 30, 2018) (hereinafter Delay Rule). The proposed Delay Rule would extend EPA's unlawful delay of another rule, Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills, 81 Fed. Reg. 59,276 (hereinafter Landfill Emission Guidelines or Guidelines) which was finalized on August 29, 2016, and went into effect on October 28, 2016.

Had EPA complied with its mandatory duties to implement the Landfill Emission Guidelines, every state would have had an approved state or federal plan to reduce emissions from existing municipal solid waste landfills by November 30, 2017. 40 C.F.R. §§ 60.30f(b), 60.27(b) & (d). Now already one year overdue, EPA here proposes to further delay implementing the Guidelines by an additional *four years*.¹ EPA characterizes the proposed Delay Rule as a "procedural change" and denies that it will have any substantive impacts. *See* 83 Fed. Reg. at 54,532 ("This regulatory action is a procedural change and does not have any impact on human health or the environment."). In fact, the adverse impacts of the proposed Delay Rule on human health and welfare—the very things Congress has tasked EPA with safeguarding—will be significant.

This proposal is particularly troubling in that it is only the latest in a series of EPA's efforts to do what it is not allowed to do: stay the Guidelines while it reconsiders them. *See, e.g.,*

¹ Under EPA's proposal, the deadline for the agency to impose a federal plan for states without an approved state plan would not be until March 2023—six years and three months after the current deadline.

Clean Air Council v. Pruitt, 862 F.3d 1, 9 (D.C. Cir. 2017) (“[A]n agency issuing a legislative rule is itself bound by the rule until that rule is amended or revoked.”) (quoting *Nat’l Family Planning & Repro. Health Ass’n v. Sullivan*, 979 F.2d 227, 234 (D.C. Cir. 1992)). After EPA illegally stayed and then failed to enforce the Landfill Emission Guidelines, a coalition of states sued to enforce them; the proposed Delay Rule surfaced only when EPA was confronted with that litigation, days before a hearing that would resolve a critical legal issue going to EPA’s liability for its regulatory violations. The district court has since rejected EPA’s efforts to rely upon this proposal to defer or defeat judicial review. But EPA’s history of using improper procedural mechanisms to avoid implementing the Guidelines raises serious concerns about the agency’s compliance with law, and the integrity of its rationale for this latest proposal.

Certainly, there is no substantive reason to further delay protections now in place (albeit not properly enforced by EPA). When EPA issued the Landfill Emission Guidelines in 2016, it found that they would “significantly reduce” emissions of landfill gas. 81 Fed. Reg. at 59,279. Specifically, EPA estimated that the Guidelines would achieve reductions of 1,810 megagrams per year (Mg/year) in smog-forming, non-methane organic compounds (NMOC) (including volatile organic compounds, or VOCs, and hazardous air pollutants) and 285,000 metric tons of methane per year. *Id.* at 59,280. The latter is a powerful greenhouse gas (GHG); these emissions are the equivalent of more than 7.1 million metric tons of carbon dioxide (CO₂e) per year. *Id.* That is the annual equivalent of the GHGs emitted by more than 1.5 million cars.² The rule is expected to further reduce GHG emissions by displacing fossil fuel-generated electricity with electricity generated by the captured methane gas. 81 Fed. Reg. at 59,280. The expected benefits of the Landfill Emission Guidelines far outweigh the costs: EPA estimated that, by 2025, the annual *net* benefits Guidelines would be \$390 million (2012\$). *Id.* at 59,280. By delaying implementation of the Guidelines another four years, EPA is forfeiting reductions of tens of millions of metric tons of GHG emissions and at least \$1.5 billion in net benefits.

EPA’s proposed delay comes at a time when there is overwhelming and ever-growing evidence of the need for *immediate* reductions of GHG emissions. In October 2018, the leading international body of climate scientists—the Nobel-prize-winning Intergovernmental Panel on Climate Change (IPCC)—issued a new report finding that, absent substantial GHG reductions by 2030 and net zero emissions by 2050, warming above 1.5° C (2.7° F) is likely and would have wide-ranging and devastating consequences.³ And in November 2018, experts from thirteen federal agencies, including EPA, issued the second volume of the Fourth National Climate Assessment (the Assessment),⁴ which sounded yet another alarm about the devastating

² See EPA, Greenhouse Gas Equivalencies Calculator, <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>, last visited Dec. 27, 2018.

³ See IPCC Press Release, *Summary for Policymakers of IPCC Special Report on Global Warming of 1.5° C Approved by Governments* (Oct. 8, 2018), <https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/>. IPCC Special Report, *Global Warming of 1.5° C* (IPCC Special Report), <https://www.ipcc.ch/sr15/>. We hereby incorporate this report by reference and request that the full report (which is attached) be included in the administrative record.

⁴ U.S. Global Change Research Program, *Fourth National Climate Assessment Impacts, Volume II: Risks, and Adaptation in the United States* (D.R. Reidmiller et al., eds., 2018),

consequences of climate change on the United States and the imperative to take action *now*. The Assessment confirms that climate change is already having a serious impact on communities throughout the country and emphasizes that “more *immediate* and substantial global emissions reductions” are necessary to avoid the most severe long-term consequences.⁵

The sobering findings set forth in these and other reports should serve as a call to action to EPA and all other governmental entities to expedite measures to reduce GHG emissions. Instead, EPA—arguably the single most important government actor in this area, with significant authority, ability, and expertise to meaningfully address this issue—here proposes to delay until March 2023 implementing regulations that not only would achieve meaningful, near-term reductions, but that *should already have been implemented*.

The Supreme Court has said, “reasonable regulation ordinarily requires paying attention to the advantages *and* the disadvantages of agency decisions.” *Michigan v. E.P.A.*, ___ U.S. ___, 135 S. Ct. 2699, 2707 (2015). By that simple metric, EPA’s proposed Delay Rule is demonstrably unreasonable. But more than that, the proposed Delay Rule is unlawful:

- First, the proposed Delay Rule flies in the face of EPA’s statutory responsibility under the Clean Air Act to reduce the emissions of air pollutants that endanger human health and the environment, particularly given the clear evidence showing that time is of the essence in implementing GHG reduction measures;
- Second, EPA fails to provide a reasoned explanation for its change of course, delaying by four more years implementation of the Landfill Emission Guidelines rather than complying with its long-overdue duties to implement them. And under the circumstances, the proposed Delay Rule is both *unjustified* and *unjustifiable* by reasoned explanation. Indeed, the timing of this proposal, and EPA’s past procedural history, strongly suggest that EPA is simply seeking to avoid enforcing the rule at all, contrary to the law. Further, EPA leaves unexplained the inconsistencies with its prior factual findings, rendering the rule arbitrary and capricious. *See, e.g., F.C.C. v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009) (agency must provide detailed justification where it bases a new policy on facts that contradict prior policy); *Nat’l Cable & Telecomms. Ass’n, et al. v. Brand X Internet Servs., et al.*, 545 U.S. 967, 981 (2005) (agency must adequately explain reason for reversal of policy).
- Third, EPA failed to conduct a regulatory impact analysis or to otherwise analyze the foregone benefits resulting from the proposed Delay Rule (as it is required to do), dismissing the costs as “minimal” when in fact they are substantial;
- Fourth, EPA predicates the proposed Delay Rule on another proposed rule that does not on its face apply and is likely unlawful; and

https://nca2018.globalchange.gov/downloads/NCA4_2018_FullReport.pdf (Assessment). We hereby incorporate this report by reference and request that the full report (which is attached) be included in the administrative record.

⁵ *Id.* at 27 (Summary Findings, emphasis added).

- Finally, in proposing the Delay Rule, EPA failed to comply with various executive orders, including that it failed to determine whether the Rule would disproportionately impact low-income or minority populations.

The proposed Delay Rule is thus arbitrary, capricious, and unsupported by law. It would serve only to further EPA's blatant abdication of its statutory duties by enabling it to continue evading its clear duties to implement the Landfill Emission Guidelines. The States request that EPA withdraw the proposal and comply with its mandatory and long-overdue duty to implement the Guidelines immediately.

I. BACKGROUND

A. The Clean Air Act

The fundamental goal of the Clean Air Act (or CAA) is "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population." 42 U.S.C. § 7401(b). The Act provides broad governing principles, such as the supremacy of public health. *Nat'l Res. Defense Counsel v. EPA*, 896 F.3d 459, 464 n.4 (D.C. Cir. 2018), citing 42 U.S.C. § 7619(b)(3) (in promulgating regulations relating to air quality monitoring, "the Administrator shall follow the principle that protection of public health is the highest priority"). It is understood that deference to this principle "could place some limits on EPA's choice of rules." *Id.*

Congress amended the Clean Air Act in 1970. As EPA itself has stated, this was because "Congress was dissatisfied with air pollution control at all levels of government and was convinced that relatively drastic measures were necessary to protect public health and welfare. The result was a series of far-reaching amendments which, coupled with virtually unprecedented statutory deadlines, required EPA and the States to take *swift and aggressive action*." 40 Fed. Reg. 53,340, 53,342-43⁶ (emphasis added).

One feature of the 1970 amendments was the addition of Section 111, which addresses pollutants from stationary sources that are not regulated as criteria pollutants under Section 110 or hazardous pollutants under Section 112. Section 111 directs the EPA Administrator to list categories of stationary sources that "cause[], or contribute[] significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare." 42 U.S.C. § 7411(b)(1)(A)). EPA must then prescribe federal "standards of performance" for emissions of pollutants from *new* sources in each category (that is, those sources newly built or significantly modified after the date the standards of performance are promulgated). *Id.* § 7411(b)(1)(B). EPA is required to review and if appropriate revise those rules every eight years. *Id.* As to *existing* sources (to which a standard of performance would apply if the sources were new), Congress directed EPA to "prescribe regulations which shall establish a procedure similar to that provided by section 7410 of this title [Clean Air Act section 110]" under which states would submit implementation plans to EPA. *Id.* § 7411(d). In keeping with that mandate, EPA promulgates

⁶ Air Programs; Standards of Performance for New Stationary Sources; State Plans for Control of Certain Pollutants from Existing Facilities (Nov. 17, 1975).

standards of performance for existing sources in “emission guidelines,” which it issues “[c]oncurrently upon or after proposal of standards of performance” for new sources. 40 C.F.R. §§ 60.21(e), 60.22(a).

The emission guidelines provide procedures for states to submit, and for EPA to approve or disapprove, individualized state plans, which specify the standards applicable to sources within a state, along with implementation measures. If a state elects not to submit a state plan, or does not submit a “satisfactory” plan, EPA must promulgate a federal plan that directly limits emissions from the state’s sources. 42 U.S.C. § 7411(d)(2).

EPA finalized the regulations implementing Section 111(d) in 1975, and they have remained largely unchanged since then. 40 C.F.R. part 60, subpart B (§§ 60.20-60.29). In keeping with Congress’s directive, EPA ensured that the Section 111(d) implementing regulations would be “similar to” the procedures set forth by Congress in Section 110. State Plans for the Control of Certain Pollutants from Existing Facilities, 40 Fed. Reg. at 53,341 (“The plan submittal, approval/disapproval, and promulgation procedures are basically patterned after section 110 of the Act and 40 CFR Part 51 (concerning adoption and submittal of State implementation plans under section 110).”) In the 1990 amendments to the Clean Air Act, Congress revised the timeline for submission and review of state implementation plans under Section 110, because, in the words of one report, “[e]xperience since passage of the Clean Air [Act] Amendments of 1970 has shown that nine months is not adequate time for States to prepare and submit implementation plans for new or revised ambient air quality standards.”⁷ However, Congress expressed no intent for EPA to make corresponding changes to Section 111(d)’s implementing regulations.

B. Landfill Emissions

Landfills are the third largest source of anthropogenic methane in the United States.⁸ Methane is a particularly powerful GHG: While short-lived, methane is 84 to 87 times more potent than CO₂ over a 20-year timeframe,⁹ which is to say one ton of methane contributes as much to climate change as 84 metric tons of CO₂. A twenty-five percent reduction in methane emissions by 2030 would reduce average surface warming by 0.2° C around 2040.¹⁰

In addition to reducing GHG emissions, the Guidelines would reduce emissions of volatile organic compounds (VOCs), and hazardous air pollutants, which EPA has found harm human health and welfare. 81 Fed. Reg. at 59,281. VOCs form ozone, which negatively impacts respiratory and cardiovascular health. *Id.*; see also National Ambient Air Quality Standards for Ozone, 80 Fed. Reg. 65,292, 65,322 (Oct. 26, 2015) (detailing adverse health impacts of ozone

⁷ S. REP. 101-228, 1990 U.S.C.C.A.N. 3385, 3406, 1989 WL 236970 (Dec. 20, 1989).

⁸ See <https://www.epa.gov/lmop/basic-information-about-landfill-gas> (last visited Dec. 27, 2018).

⁹ See <https://www.epa.gov/ghgemissions/understanding-global-warming-potentials#Learn%20why> (last visited Dec. 27, 2018).

¹⁰ See EPA, Clean Air Act Advisory Counsel, Mobile Sources Technical Review Subcommittee Meeting (Oct. 29, 2013), Rachel Muncrief, Short Lived Climate Pollutants: Methane and Natural Gas, <https://www.epa.gov/sites/production/files/2014-09/documents/muncrief.pdf>.

exposure, particularly to children, older adults, and people with lung diseases). Similarly, exposure to hazardous air pollutants increases the risk of many cancer and noncancer health impacts, including respiratory and neurological illnesses. *See* Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources, 81 Fed. Reg. 35,824, 35,837 (June 3, 2016).

C. The Landfill Emission Guidelines

EPA first proposed rules regulating landfill emissions in 1991.¹¹ In 1996, EPA listed landfills as a source category that contributes significantly to air pollution that may reasonably be anticipated to endanger public health and welfare, and concurrently promulgated new source performance standards (NSPS) and existing-source emission guidelines for states' development of implementation plans.¹² This was even before EPA's finding in 2009 that GHGs—the primary constituents of landfill emissions—endanger public health and welfare through their contribution to climate change.¹³ A review of the 1996 rules was ten years overdue by 2014, when EPA first noticed the rulemaking that led to the Guidelines that are the subject of the proposed Delay Rule.¹⁴

The Landfill Emission Guidelines are largely patterned after the regulations they supercede. The most salient changes made by the new regulations are that they change the timeframes used to classify landfills as “new” versus “existing,” lower the NMOC emission threshold at which a gas collection and control system (GCCS) must be installed (from 50 Mg/year to 34 Mg/year), and add a new method by which landfills can measure emissions for purposes of determining whether they must install controls. 81 Fed. Reg. at 59,278-79.

The Emission Guidelines require states to submit compliance plans by May 30, 2017 (nine months after the Guidelines were finalized), 40 C.F.R. § 60.30f(b), and require EPA to approve or disapprove those plans within four months of state submission—by September 30, 2017. *Id.* § 60.27(b). For states that failed to submit an approvable implementation plan, EPA has up to six months from the state submission deadline, or until November 30, 2017, to promulgate an adequate federal plan. *Id.* § 60.27(d).

D. Initial Stay and Lawsuit

Shortly after the Landfill Emission Guidelines went into effect, industry groups submitted petitions for reconsideration, which the Obama administration EPA did not grant. On May 5, 2017, however, the Trump administration EPA sent a letter to industry groups, stating its intent to grant their petition for reconsideration of the Guidelines on the basis that “the petition has raised several objections . . . that arose after the comment period or were impracticable to

¹¹ Standards of Performance for New Stationary Sources and Guidelines for Control of Existing Sources: Municipal Solid Waste Landfills, 56 Fed. Reg. 24,468 (May 30, 1991).

¹² Standards of Performance for New Stationary Sources and Guidelines for Control of Existing Sources: Municipal Solid Waste Landfills, 61 Fed. Reg. 9905 (March 12, 1996).

¹³ Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496 (Dec. 15, 2009).

¹⁴ Standards of Performance for Municipal Solid Waste Landfills, 79 Fed. Reg. 41,796 (July 17, 2014).

raise during the comment period” and that “are of central relevance to the outcome of the rule[s].”¹⁵ EPA also stated its intent to issue a 90-day stay of the Guidelines. EPA formally published notice of the stay on May 31, 2017 (one day after the May 30 deadline for states to submit compliance plans). 82 Fed. Reg. 24,878. (In the proposed Delay Rule, EPA notes at footnote 8 that its reconsideration proceeding is “ongoing.” 83 Fed. Reg. at 54,531.)

Two weeks later, Natural Resources Defense Council (NRDC) and the Clean Air Council (Petitioners) filed suit in the D.C. Circuit challenging EPA’s 90-day stay under Clean Air Act section 307(b)(1). *NRDC v. Pruitt*, No. 17-1157 (D.C. Cir. filed June 15, 2017). Petitioners argued that, contrary to EPA’s assertion, the criteria for mandatory reconsideration under Section 307(d)(7)(B) were not met, so EPA lacked legal authority to stay the Guidelines. *Id.*, Pet. Stmt. Of Issues, ECF No. 1685199 at 1-2 (July 20, 2017); *see also* Pet. Initial Opening Br., ECF No. 1705177 at 21-22 (Nov. 20, 2017).¹⁶ Shortly after that action was filed, in July 2017, EPA submitted to the Office of Management and Budget (OMB) a proposed rulemaking regarding the Guidelines, publicly stating, “EPA intends to further extend the [90-day] stay in this action. Sources will not need to comply with any requirements under these rules while the stay is in effect.”¹⁷ (Ultimately, EPA did not issue the proposal—which it would have lacked authority to do.)

Notwithstanding EPA’s statement in its rulemaking proposal to OMB, in its response to Petitioners’ brief in *NRDC v. Pruitt*, EPA argued that the case was moot because the 90-day stay had no impact on any of the Landfill Emission Guidelines’ compliance deadlines. Specifically, EPA stated, with regard to its obligations to implement the Guidelines, it had “four months, until September 31 [sic], 2017, to approve or disapprove any state plans that were timely submitted by May 30, and six months, until November 30, 2017, to promulgate a federal plan for states that did not timely submit state plans.” Respondents’ Initial Br., ECF No. 1714147 at 36 (Jan. 22, 2018). EPA acknowledged that these deadlines “have come and gone, and the Stay Decision had no effect on them.” *Id.* EPA also conceded it “has neither approved nor disapproved the state plans that were timely submitted, nor promulgated any federal [implementation] plans” and noted, citing 42 U.S.C. § 7604(a)(2), that “any remedy for EPA’s failure to act in this regard would lie in district court.” *Id.* at 37. On January 31, 2018, in light of EPA’s representations, Petitioners and EPA stipulated to voluntary dismissal of the case. *NRDC v. Pruitt*, Stip. Of

¹⁵ See Letter of May 5, 2017 from EPA Administrator E. Scott Pruitt to Mr. Carroll W. McGuffey III, et al., https://www.epa.gov/sites/production/files/2017-05/documents/signed_-_letter_-_municipal_solid_waste_landfills.pdf; *see also* Stay of Standards of Performance for Municipal Solid Waste Landfills and Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills, 82 Fed. Reg. 24,878 (May 31, 2017) (noting that by this letter, EPA “convened a proceeding”).

¹⁶ On essentially the same facts, the D.C. Circuit had just invalidated EPA’s 90-day stay of regulations addressing methane emissions from oil and gas operations, because the court found the criteria for reconsideration were not met. *Clean Air Council v. EPA* (D.C. Cir. 2017) 862 F.3d 1.

¹⁷ See Stay of Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills, RIN 2060-AT64, <https://reginfo.gov/public/do/eAgendaViewRule?pubId=201704&RIN=2060-AT64> (last visited Nov. 9, 2018).

Voluntary Dismissal Pursuant to Fed. R. App. Proc. 42(b), ECF No. 1715796 at 2-3 (Jan. 31, 2018).

E. Pending Lawsuit Challenging EPA's Failure to Enforce

Two states—California and New Mexico—timely submitted state plans by the May 30, 2017 deadline. (Arizona submitted its state plan on July 24, 2018, and, according to comments submitted in this proceeding, West Virginia submitted its state plan on September 13, 2018. *See* Dkt. No. EPA-HQ-OAR-2018-0696-0006 at 2 (Nov. 8, 2018).) To date, EPA has not responded to those state plans, nor did EPA promulgate a federal plan within the six-month deadline for those states that did not submit a state plan. EPA's failure to comply with these mandatory deadlines prompted several states to file a lawsuit under the Citizen Suit provision of the Clean Air Act. *State of California v. EPA*, Case No. 4:18-cv-03237-HSG (N.D. Cal. May 31, 2018).

EPA has not denied it committed the alleged violations.¹⁸ Rather, in a motion to dismiss, EPA admitted that its sole defense is that only *statutory* mandates can support an action under the Citizen Suit provision, and that the court therefore lacked jurisdiction to order EPA to perform its nondiscretionary *regulatory* duties. (This assertion is inconsistent with its statement to the court in *NRDC v. Pruitt* that any remedy for its failure to comply with the regulatory deadlines would lie in district court.) Shortly after the October 25, 2018 hearing on EPA's motion, but before the court issued its ruling, EPA moved to stay the action while it pursued this rulemaking, wherein the agency proposes to extend into the future the regulatory deadlines that plaintiff States seek to enforce in that action.

In a ruling issued on December 21, 2018, the court denied EPA's motion to stay and also its motion to dismiss, finding that Congress's intent to hold EPA accountable for failing to perform duties set forth in regulations under the Clean Air Act was "readily discernable." *California v. EPA*, Order Denying Defs.' Mot. to Dismiss and Mot. to Stay Case, Dkt. 82 at 7, citing *Sierra Club v. Leavitt*, 355 F. Supp. 2d 544, 555 (D.D.C. 2015). That ruling resolves the legal issue underlying EPA's liability for the regulatory violations. On the merits of the plaintiff States' claims, all that remains is to determine the appropriate remedy. The court set a briefing schedule for the States' motion and EPA's cross-motion for summary judgment, with a hearing on April 25, 2019.

F. Climate Change

Our States are already experiencing the deleterious impacts of climate change. In an appendix to these comments (Appendix A), we describe in detail the climate change-related harms our individual states are already experiencing or face in the near future. These harms include successive record-breaking fire seasons in California resulting in unprecedented loss of life and billions of dollars in damages and economic harm; dramatic increases in the frequency and intensity of extreme rain storms across Rhode Island and Vermont that have caused severe

¹⁸ *See, e.g., NRDC v. Pruitt*, Respondents' Initial Br., ECF No. 1714147 at 37 (Jan. 22, 2018) ("EPA has neither approved nor disapproved the state plans that were timely submitted, nor has EPA promulgated any federal plans . . .").

flooding; extreme precipitation swings in Illinois and Pennsylvania that threaten agricultural yields; a sharp increase in unhealthy air days since 2013 in Oregon due to forest fires; sea level rise affecting the coasts of California, Maryland, Oregon, New Jersey, Oregon, Pennsylvania, and Rhode Island and expected to result in billions of dollars of damage to property and critical infrastructure; and extensive anticipated tree and forest mortality across New Mexico from increased temperatures, to name a few.

Recent reports confirm that we must act immediately to reduce GHG emissions to avoid their most serious consequences. On November 23, 2018, EPA and twelve other U.S. government agencies released the second volume of the Fourth National Climate Assessment (Assessment),¹⁹ which provides a thorough evaluation of the harmful impacts of climate change that different regions of the country are experiencing and the projected risks climate change poses to our health, environment, economy and national security.

The Assessment confirms that “[c]limate-related changes in weather patterns and associated changes in air, water, food, and the environment are affecting the health and well-being of the American people, causing injuries, illnesses, and death.”²⁰ It makes clear that we need to act *now* to reduce GHG emissions: “Early and substantial mitigation offers a greater chance for achieving a long-term goal, whereas delayed and potentially much steeper emissions reductions jeopardize achieving any long-term goal given uncertainties in the physical response of the climate system to changing atmospheric CO₂, mitigation deployment uncertainties, and the potential for abrupt consequences.”²¹ The Assessment cautions that “[i]n the absence of significant global mitigation action and regional adaptation efforts, rising temperatures, sea level rise, and changes in extreme events are expected to increasingly disrupt and damage critical infrastructure and property, labor productivity, and the vitality of our communities.”²² Furthermore, “[b]y the end of this century, thousands of American lives could be saved and hundreds of billions of dollars in health-related economic benefits gained each year under a pathway of lower GHG emissions.”²³

The Assessment represents the federal government’s most up-to-date and comprehensive analysis of climate science and the impacts of climate change on the United States.²⁴ It reflects the work of more than 300 governmental and non-governmental experts, was externally peer-reviewed by a committee of the National Academies of Sciences, Engineering and Medicine, and underwent several rounds of technical and policy review by the thirteen federal member agencies of the U.S. Global Change Research Program, including EPA.²⁵

A month before the Assessment was released, in October 2018, the IPCC issued a Special Report titled *Global Warming of 1.5 C*, wherein the IPCC concludes that global warming is

¹⁹ See Assessment, *supra*, n.4.

²⁰ *Id.* at 541.

²¹ *Id.* at 1351.

²² *Id.* at 25 (Summary Findings).

²³ *Id.* at 541.

²⁴ *Id.* at 1; see also Global Change Research Act of 1990, Pub. L. No. 101-606, 15 U.S.C. §§ 2921-2961.

²⁵ Assessment at iii, 2.

likely to reach 1.5° C between 2030 and 2052 if emissions continue to increase at the current rate.²⁶ We are already seeing the consequences of the 1° C of warming to date as demonstrated by more extreme weather, rising sea levels and diminishing arctic sea ice. The IPCC projects major damage to marine ecosystems such as coral reefs which are projected to decline 70–90 percent at 1.5°C, while essentially being eliminated worldwide at 2° C.²⁷

Several other recent findings are noteworthy:

- Global carbon emissions reached an all-time high in 2018.²⁸ (One article aptly characterized this as “an extraordinary watermark in Earth’s history that underscores the need for faster and stronger action to address accelerating climate change.”²⁹)
- In 2018, atmospheric CO₂ levels measured at the National Oceanic and Atmospheric Administration’s (NOAA) Mauna Loa Observatory exceeded the 410 parts per million (ppm) threshold for the first time, reaching 411 ppm in May 2018.
- The growth rate of global CO₂ levels is accelerating, averaging about 1.6 ppm per year in the 1980s and 1.5 ppm per year in the 1990s, but increasing to 2.2 ppm per year during the last decade.³⁰
- Global temperatures during the first half of 2018 were the hottest on record during a La Niña year.³¹

There is also evidence to show that many of the record-setting phenomena we have recently seen will become the new normal, or are likely to become even more extreme:

- A study of agricultural crop response to climate warming indicates that insect pests will consume important U.S. grain crops—wheat, rice and corn—at an increasing rate: While insects already consume 5-20 percent of major grain crops, models show yield lost to insects will increase by 10-25 percent per degree Celsius of warming.³²

²⁶ See IPCC Special Report (*supra*, n.3) at 65.

²⁷ *Id.* at 230 (Box 3.4).

²⁸ Le Quéré, C. et al., *Global Carbon Budget 2018*, 10 EARTH SYST. SCI. DATA 2141, Dec. 5, 2018, <https://doi.org/10.5194/essd-10-2141-2018>.

²⁹ Chelsea Harvey, *More CO₂ Released in 2018 Than Ever Before*, E&E News (Dec. 6, 2018); <https://www.eenews.net/climatewire/2018/12/06/stories/1060108875>.

³⁰ See <https://research.noaa.gov/article/ArtMID/587/ArticleID/2362/Another-climate-milestone-falls-at-NOAA%E2%80%99s-Mauna-Loa-observatory> [website currently unavailable due to government shutdown].

³¹ See *July Sees Extreme Weather with High Impacts*, WORLD METEOROLOGICAL ORG., <https://public.wmo.int/en/media/news/july-sees-extreme-weather-high-impacts> (last visited Dec. 27, 2018).

³² Deutsch, C. et al., *Increase in crop losses to insect pests in a warming climate*, 361 SCIENCE 916 (Aug. 31, 2018) (abstract); <http://science.sciencemag.org/content/361/6405/916>.

- Future hurricanes will have stronger maximum winds, move slower and drop more precipitation according to a modeling analysis by U.S. government scientists of 22 recent hurricanes.³³ The unprecedented rainfall totals associated with the “stall” of Hurricane Harvey over Texas in 2017 provide a notable example of the relationship between regional rainfall amounts and tropical-cyclone translation speed.³⁴ Similarly, before Hurricane Florence came ashore over the Carolinas in 2018, U.S. government and academic scientists forecasted rainfall amounts would be increased by over 50 percent due to warmer sea surface temperatures and available atmospheric moisture attributable to climate change.³⁵
- Climate change is intensifying droughts, which decrease mountain snowpack and threaten crop yields.³⁶ In 2015, “drought conditions caused about \$5 billion in damages across the Southwest and Northwest,” due to fallow farmland and reduced crop yields.³⁷ The occurrence of drought years in the past two decades has been greater in California than in the preceding century.³⁸ And human-induced climate change is expected to increase the likelihood of future warm-dry conditions that lead to droughts.³⁹ Climate change is also expected to increase the frequency of dry-to-wet precipitation events like California’s recent transition from multi-year drought to extreme wetness in 2016-2017. One study projects a 25-100% increase in these extreme dry-to-wet events.⁴⁰
- In August 2018—prior to the devastating Camp Fire—California released a report⁴¹ wherein, on the basis of numerous studies, it suggests large wildfires (greater than 25,000 acres) could become 50 percent more frequent by the end of century if GHG emissions are not reduced.⁴² The model produces more years with extremely high areas burned,

³³ Gutmann et al. *Changes in Hurricanes from a 13-Yr Convection-Permitting Pseudo-Global Warming Simulation*, 31 J. CLIMATE 3643–3657, Jan. 24, 2018, abstract, <https://doi.org/10.1175/JCLI-D-17-0391.1>

³⁴ Kossin, J., *A global slowdown of tropical-cyclone translation speed*, 558 NATURE 104 (June 7, 2018); <https://www.nature.com/articles/s41586-018-0158-3>.

³⁵ Reed, K., et al., *The human influence on Hurricane Florence*, <https://crd.lbl.gov/assets/Uploads/Wehner/climate-change-Florence-0911201800Z-final.pdf>.

³⁶ See Assessment, Report-in-Brief at 58, 67.

³⁷ *Id.* at 58.

³⁸ Diffenbaugh, et al., *Anthropogenic Warming Has Increased Drought Risk in California*, 112:13 Proceedings of the Nat’l Academy of Sci. 3931 (Mar. 31, 2015).

³⁹ *Id.*

⁴⁰ Swain, et al., *Increasing Precipitation Volatility in Twenty-First-Century California*, 8 NATURE CLIMATE CHANGE 427 (2018).

⁴¹ See Bedsworth, L., et al., (California Governor’s Office of Planning and Research, Scripps Institution of Oceanography, California Energy Commission, California Public Utilities Commission) 2018 Statewide Summary Report, California’s Fourth Climate Change Assessment (California Assessment), www.ClimateAssessment.ca.gov. We hereby incorporate this report by reference and request that the full report (which is attached) be included in the administrative record.

⁴² *Id.* at 9.

even compared to the historically destructive wildfires of 2017 and 2018.⁴³ By the end of the century, California could experience wildfires that burn up to 178 percent more acres per year than current averages.⁴⁴ Increased wildfire smoke will also lead to more respiratory illness.⁴⁵

Extreme weather events come at an extreme cost. For example, in 2017, Hurricanes Harvey, Maria, and Irma cost the U.S. approximately \$265 billion (\$125 billion, \$90 billion, and \$50 billion, respectively).⁴⁶ Costs to the states are also significant: in California, the cost of firefighting has tripled since 2013, to \$947.4 million at the end of the 2018 fiscal year.⁴⁷ These are just a few examples. With all such disasters, the costs do not end when the skies clear; there are also the costs of cleanup and rebuilding—which burden individuals, communities, insurance companies, and state and federal agencies alike.

Every day that implementation of the Landfill Emission Guidelines is delayed is another day that excess emissions are released to the atmosphere to exacerbate climate change and associated harms. By avoiding emissions in the near term—particularly methane emissions—we are not merely delaying the onset of severe consequences; we are increasing the likelihood that we can avoid such consequences—and their associated costs—altogether. The delays proposed by EPA are thus time that we cannot get back in the fight against climate change.

II. DISCUSSION

EPA’s proposed Delay Rule is unlawful and should be withdrawn. EPA provides no explanation for how the proposed Delay Rule serves its mandate under the Clean Air Act, and, in fact, the proposed Delay Rule *contravenes* that mandate. Moreover, EPA fails to offer good reasons for replacing the current deadlines in the Landfill Emission Guidelines. None of the bases that EPA provides for its promulgation are supportable, including its manufactured need to “align” implementation of the Guidelines with the implementation timeline set forth in the proposed Affordable Clean Energy (ACE) rule that would replace the Clean Power Plan (83 Fed. Reg. at 54,529; *see* 83 Fed. Reg. 44,746⁴⁸). Indeed, many of EPA’s justifications are contradicted by facts EPA fails to address. In addition, EPA has failed to conduct a regulatory impact analysis. By ignoring this and other analyses and procedural steps required by executive orders, EPA has unlawfully avoided assessing and disclosing the foregone benefits and other impacts that would result from its delay of the Landfill Emission Guidelines.

⁴³ *Id.*, Summary of Key Findings at 6, <http://www.climateassessment.ca.gov/state/docs/20180827-SummaryBrochure.pdf>.

⁴⁴ California Assessment at 30.

⁴⁵ *Id.* at 38; Summary of Key Findings at 8.

⁴⁶ *Hurricane Costs*, NOAA, www.coast.noaa.gov/states/fast-facts/hurricane-costs.html (last visited Dec. 21, 2018).

⁴⁷ *Emergency Fund Fire Suppression Expenditures (Dec. 2018)*, CAL. DEPT. OF FORESTRY AND FIRE PROTECTION, http://www.fire.ca.gov/fire_protection/downloads/SuppressionCostsOnepage.pdf.

⁴⁸ Emission Guidelines for Greenhouse Gas Emissions From Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program (Aug. 31, 2018) (ACE Rule).

For each of these reasons, explained further below, EPA's proposed action is arbitrary and capricious and contrary to law.

A. The Proposed Delay Rule Contravenes EPA's Statutory Obligations Under the Clean Air Act

Under the Administrative Procedure Act, courts will set aside an agency action that is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). Courts have held that rules may be arbitrary and capricious where they fail to accomplish their statutory objectives. *See Chem. Mfrs. Ass'n v. EPA*, 217 F.3d 861, 867 (D.C. Cir. 2000) (rule establishing schedule for new emission standards was arbitrary and capricious absent evidence it would benefit human health and the environment: "Given the absence of environmental benefits—indeed, the possibility of environmental harm—EPA violated the basic requirement that its actions must 'not deviate from or ignore the ascertainable legislative intent.'") (citing *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 520 (D.C. Cir. 1983)).

The proposed Delay Rule contravenes EPA's congressional mandate to "protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population." 42 U.S.C. § 7401(b). As established by a number of scientific reports—including the Assessment, which EPA itself contributed to and that it cannot ignore or downplay—there is significant evidence showing that climate change presents a grave threat to public health and welfare, both in the short and long term. Under those circumstances, EPA should be prioritizing implementation of measures such as the Landfill Emission Guidelines that will reduce GHG emissions, not delaying them.

In *Telecomms. Research & Action Ctr. v. F.C.C. (TRAC)*, 750 F.2d 70, 80 (D.C. Cir. 1984), the Supreme Court articulated the "contours" of a standard for evaluating whether an agency action was unreasonably delayed. The context at issue here is different (where an agency proposes to intentionally cause delay via a rulemaking), but the criteria are instructive nonetheless.

As a preliminary matter, the time agencies take to act must be governed by a "rule of reason," to be supported by reference to the statutory scheme. *Id.* (internal citations omitted). Here, as discussed in detail below, EPA has cited no valid basis for its proposed delay, and its proposal wholly contravenes the purpose of the statute, which, as EPA has acknowledged, was to force "swift and aggressive action" on matters critical to human health and welfare. 40 Fed. Reg. at 53,343. The Delay Rule thus violates the rule of reason.

TRAC also notes that delays that might be reasonable in the sphere of economic regulation are "less tolerable when human health and welfare are at stake." 750 F.2d at 80. The extent to which human health and welfare is at stake in this matter is discussed above, and cannot be overstated. Climate change is one of the greatest and most pressing challenges of our time. The impacts are already being widely felt and present a high risk of imminent crisis in many areas of the world, including our States. Not only has EPA failed to justify the delay it proposes, but, in light of the volume of evidence showing that urgent action is needed, it is hard to imagine

how any delay could be justified here. EPA's proposal is thus unlawful. *See Ctr. for Biological Diversity v. Nat'l Hwy. Traffic Safety Admin.*, 538 F.3d 1172, 1197 (9th Cir. 2008) (invalidating "standards that are contrary to Congress's purpose in enacting the [relevant statute]").

If anything, EPA should be working to hasten the Landfill Emission Guidelines' implementation. The Guidelines, by their nature, seek to implement measures to control pollutants that EPA has determined endanger public health. It was Congress's intent that such rules be implemented expeditiously. 40 Fed. Reg. at 53,343. Moreover, the plans at issue are not particularly complex: They address emissions from a single source (landfills), and the technology that can achieve the reductions (gas collection and capture systems, or GCCS) is already widely deployed.⁴⁹ The only real change from the previous emission guidelines is that a landfill operator would be required to install GCCS at a lower emissions threshold. States already have plans in place that need only be updated or that can at the very least serve as a template for revised plans that meet the new requirements. Further, at this point, states have considerable experience and expertise in developing compliance plans for various Clean Air Act programs, and advances in communications and information-sharing technologies enable agencies to work more efficiently than they did in 1975.

It is true that Congress saw fit to extend the implementation timelines for Section 110. For reasons discussed below, however, this does not mean there is a reflexive need (or that it would be appropriate) to adjust the implementation timeline under Section 111(d) generally. In any case, there is no need to modify the implementation timeline for the Landfill Emission Guidelines. If Congress had intended for the amendments to Section 110 timelines to apply identically to Section 111(d), it could have made that intent clear. Without such a directive, EPA cannot justify extending the timelines for the Landfill Emission Guidelines, particularly given the environmental and human health harms that will result from such a delay.

The timing of EPA's announcement and publication of the proposed Delay Rule highlights the stark divide between the goals of the Clean Air Act and EPA's real intent here. EPA rushed this proposed Rule out just two days before oral argument in the States' lawsuit challenging EPA's failure to implement the Landfill Emission Guidelines. On the basis of this flawed proposal, EPA requested that the court stay its adjudication of the States' allegations that EPA has violated its mandatory duties under the Act, in an effort to stave off an order that it perform them. The court rejected this invitation, but the timing of EPA's proposal and the motion hearing strongly suggests that the proposal was motivated more by EPA's desire to evade review than any substantive evidence in the record.

At bottom, EPA's apparent disinclination to act cannot trump Congress's directive to address dangerous emissions sources, especially in light of overwhelming evidence of harm that EPA has itself acknowledged.⁵⁰ The courts have repeatedly cautioned EPA that "well-intentioned policy objectives" do not on their own support agency deviations from statute. *See, e.g.,*

⁴⁹ 638 landfills across the country already control their emissions using some form of GCCS. See 81 Fed. Reg. at 59,305, table 2.

⁵⁰ *See* 74 Fed. Reg. 66,496.

Mexichem Fluor, Inc. v. EPA, 866 F.3d 451, 460 (D.C. Cir. 2017) (Kavanaugh, J.). Here, Congress established Section 111(d) to ensure that both new and existing sources of dangerous pollutants would be properly controlled. EPA’s invented policy rationales to junk the current implementation framework may not even be well-intentioned, given its history of procedural delays. But the substantive content of the proposal—removing current deadlines, and then delaying emission protections from existing sources for half a decade or more—is inconsistent with Congress’s direction to put these protections in place. EPA’s proposal thus appears intended both to frustrate judicial review and to shirk Congressional obligations. Administrative agencies may not freelance based on their own policy preferences in this manner.

B. EPA Fails to Offer Valid Reasons for Reversing Course in the Proposed Delay Rule

An agency action is also arbitrary and capricious and subject to being set aside where the agency (i) has relied on factors which Congress has not intended it to consider; (ii) entirely failed to consider an important aspect of the problem; (iii) offered an explanation for its decision that runs counter to the evidence before the agency; or (iv) is so implausible that it could not be ascribed to a difference of view or the product of agency expertise. *Motor Vehicle Mfrs. Ass’n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (“*State Farm*”).

An “agency changing its course . . . is obligated to supply a reasoned analysis for the change.” *Id.* at 42. The Supreme Court has clarified that while an agency need not show that a new rule is better than the rule it replaced, it must demonstrate that “there are good reasons” for the replacement. *F.C.C. v. Fox*, 556 U.S. at 515. Further, an agency must “provide a more detailed justification than what would suffice for a new policy created on a blank slate” when “its new policy rests upon factual findings that contradict those which underlay its prior policy.” *Id.* Any “unexplained inconsistency” between an existing rule and a proposal to delay it is “a reason for holding an interpretation to be an arbitrary and capricious change.” *Nat’l Cable & Telecomms. Ass’n*, 545 U.S. at 981. Moreover, an agency cannot suspend a validly promulgated rule without first “pursu[ing] available alternatives that might have corrected the deficiencies in the program which the agency relied upon to justify the suspension.” *Pub. Citizen v. Steed*, 733 F.2d 93, 103 (D.C. Cir. 1984); *see also Organized Village of Kake v. U.S. Dept. of Agric.*, 795 F.3d 956, 966-68 (9th Cir. 2015) (invalidating rule where agency failed to provide the “reasoned explanation” required by *Fox* for disregarding the facts and circumstances underlying prior rule).

1. There is no legal or practical need to align the Landfill Emission Guidelines’ implementation with the timeline set forth in Section 110

EPA’s primary justification for the Subpart Ba changes in the ACE Rule, and for the changes proposed here, is that they are necessary to align the Section 111(d) timeline with the statutory timeline for State Implementation Plans (SIPs) under Section 110. EPA thus implies that the changes are willed by Congress, but there is no evidence to support that proposition. The Clean Air Act requires that EPA regulations under Section 111(d) be “similar to” the provisions under Section 110, but nothing requires that they be identical. As EPA notes, “similar to” requires only that EPA “carefully consider the major structural features of CAA section 110 and,

where appropriate, adopt similar provisions in its regulations implementing CAA section 111(d).” 83 Fed. Reg. at 54,530 n.4 (emphasis added). We agree: Congress implicitly directed EPA to ensure the implementation framework under Section 111—while “similar” to that under Section 110—reflected the unique goals and approach of Section 111.

Absent a legal mandate to change the implementation timeline here, EPA relies on unsupportable claims concerning the “time, work, and effort” required to prepare a state plan to comply with the Landfill Emission Guidelines and suggests it is equivalent to the time, work, and effort required to develop a SIP under Section 110. *Id.* at 54,530. This is unavailing. It is not reasonable to base the Guidelines’ deadlines on SIP deadlines. While both programs rely on a model of cooperative federalism, SIPs are inherently more complex than most Section 111(d) plans, and particularly the Guidelines at issue here. For one, SIPs require different and often extensive levels of controls across a broad range of sources to collectively reduce emissions as necessary to achieve a uniform health-based standard. The analyses supporting a SIP thus require significant coordination across sectors and complex modeling. The Landfill Emission Guidelines, on the other hand, address pollution from a single source category—landfills—and are based on a particular system of pollution control; the emission-reduction goals can be achieved by using the system that EPA relied on in developing the Guideline in the first place. Finally, the state plans here will not require certain elements that can further complicate the development of SIPs, including, for example, New Source Review permitting provisions or motor vehicle emission budgets.

EPA itself has conceded that the SIPs in Section 110 are generally far more complex than the state plans under Section 111(d). *See id.*, n.4 (“The EPA acknowledges that the procedural and substantive requirements established by Congress for the SIP process under CAA section 110 are *considerably more detailed than the corresponding requirements* established by Congress for the state existing-source performance standards plans under CAA section 111(d).” (emphasis added)); *see also* 40 Fed. Reg. at 53,345 (“Section 111(d) plans will be much less complex than the SIPs”). The difference in complexity between Sections 110 and 111(d) inherently warrants distinct timelines and more rigorous reviews to confirm completeness of state plan submissions. In the case of emission guidelines that are more complex, there may well be a need to allow more time to complete a state plan. For example, in its emission guidelines to control CO₂ emissions from existing power plants (the Clean Power Plan), EPA allowed states one year to submit their plans and also gave them the option of obtaining a two-year extension of that deadline. *See* 80 Fed. Reg. 64,662, 64,855.⁵¹

Moreover, while “experience” showed that nine months was not adequate time for states to submit SIPs under Section 110, such evidence is lacking in the context of Section 111(d). In the ACE Rule, EPA cites “years of experience with working with states to develop SIPs under section 110” (83 Fed. Reg. 44,769; *see also* 83 Fed. Reg. 54,530) but fails to explain why its experience with SIPs under Section 110 justifies more time under Section 111(d). In the proposed Delay Rule, EPA cites the fact that the majority of states failed to timely submit plans;

⁵¹ Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (Oct. 23, 2015).

as discussed below, the better explanation for this is that EPA all but urged them not to because it was reconsidering (and thus, likely to change) the rules.

2. EPA has not adequately justified any single proposed extension; nor could it, based on the evidence

Implementation of the Landfill Emission Guidelines is a multistep process. The Delay Rule proposes an extension of every discrete deadline in that process, resulting in an aggregate delay of more than five years. EPA has not justified any of those discrete delays; nor could it based on the evidence. Moreover, EPA's addition of a six-month "completeness review" period is a transparent tactic for further unnecessary delay.

a. State plan submissions

When EPA finalized the 2016 Emissions Guidelines, it had confidence that "the majority of states will be able complete the process within the prescribed 9 months." EPA, Response to Public Comments at 31 (July 2016).⁵² It specifically denied the request of a few commenters for an extended timeline, explaining that while a "state may not be able to submit a revised plan within this timeframe due to the specific circumstances of the state's rulemaking process ... such circumstances will be the exception rather than the rule." *Id.* EPA now proposes to extend the present nine-month period for states to submit implementation plans to three years, but it offers no valid justification for this change of course. As bases for the proposed Delay Rule, EPA cites "the reasons proposed in the ACE Rule" (namely, to "harmonize" the implementation timeline for Clean Air Act section 111(d) with section 110, 83 Fed. Reg. at 44,748), and comments received on the 2015 proposed guidelines. 83 Fed. Reg. at 54,530, n.4. Neither of these justifies the proposed extension or explains the inconsistency between the proposed Delay Rule and EPA's prior policy, rendering the proposal arbitrary and capricious. *Nat'l Cable & Telecomms. Ass'n*, 545 U.S. at 981.

First, EPA has offered no reasoned explanation in this proposal or in the ACE Rule proposal as to why it is appropriate to change course and adopt the *maximum* period allowed for SIP development under Section 110 (which allows for shorter periods as determined by EPA), in light of its concession that Section 111(d) plans are generally subject to considerably less detailed requirements than SIPs under Section 110. This is particularly true in the case of the Landfill Emission Guidelines: States already have existing state plans to comply with the prior emission guidelines; all that is required is to modify them to reflect the regulatory changes imposed by the Landfill Emission Guidelines, which, as noted above, are largely patterned after the prior guidelines. As a result, states do not need to write their compliance plans from scratch; rather, they can modify their existing plans to accommodate the new regulatory requirements.

Second, contrary to EPA's bald assertion, the circumstances surrounding the Landfill Emission Guidelines do not demonstrate that "states need more time to submit a plan." 83 Fed. Reg. at 54,530. Two states—California and New Mexico—timely submitted plans within the applicable nine-month deadline. Arizona and West Virginia have also since submitted their

⁵² <https://www.epa.gov/sites/production/files/2016-12/documents/landfill-nsps-eg-2016-rtc.pdf>.

plans, well ahead of the proposed three-year deadline. More importantly, on May 5, 2016—more than three weeks before states were required to submit their plans—EPA sent a letter to industry groups indicating its intent to grant their petition to reconsider the Guidelines, and to stay the rule “in [its] entirety” for 90 days while it did so. (The 90-day stay was made formal on May 31, 2017.⁵³) At the time, Arizona, Colorado, Delaware, Florida and likely a number of other states were in the process of developing plans; many had even completed a draft plan and had provided requisite notice of a public hearing.⁵⁴ They likely decided not to expend further resources on the effort given EPA’s announced intention to, at a minimum, delay implementation of the Guidelines.

Nowhere in the proposed Delay Rule does EPA address the effects of its own actions in discouraging the submittal of state plans. Regardless, EPA has no way of knowing why other states did not timely submit their plans and no basis to assert that it was because they had insufficient time to do so. Because EPA announced its intent to stay the 2016 rule *before* the nine-month period had expired, and has continued to advise states that they need not submit plans, it cannot be inferred from the non-submittal of plans that states *could not* have timely submitted plans. Again, where EPA genuinely believes that states need more time to complete plans for a particular emission guideline, it can give them more time across the board, as it did for the Clean Power Plan. *See* 80 Fed. Reg. at 64,855. Or EPA could extend the deadline on an individual basis where it finds, based upon the factual record before it, that a state has demonstrated the need for more time to submit its plan. 40 C.F.R. § 60.27(a) (“The Administrator may, whenever he determines necessary, extend the period for submission of any plan or plan revision or portion thereof.”)

Nor do comments submitted in response to the 2015 proposed guidelines provide any support for the notion that three years are necessary to develop state plans. The proposed Delay Rule cites the fact that “some” commenters objected to the nine-month period, due to time needed for rule development and required public processes. In fact, only four of the fifty states made such comments, and none of them requested *three years* to submit a plan. *See* 83 Fed. Reg. at 54,530 (citing July 2016 EPA Responses to Public Comments document, pp. 30-33). Specifically, Idaho requested two years, Iowa one year, Pennsylvania one year, and New Mexico one to one-and-a-half years. The National Association of Clean Air Agencies (NACAA), a nonpartisan organization representing air pollution control agencies in 40 states, the District of

⁵³ Stay of Standards of Performance for Municipal Solid Waste Landfills and Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills, 82 Fed. Reg. 24,878 (May 31, 2017).

⁵⁴ *See, e.g.*, http://static.azdeq.gov/aqd/msw_sp.pdf (Arizona Dept. of Envi. Quality, State Plan submittal, noting at p.1 that the stay ended and was not renewed, and so the state was submitting its plan to fulfill the emission guidelines requirements);

https://www.colorado.gov/pacific/sites/default/files/AP_FAQforLandfills_1.pdf (Colorado Air Pollution Control Div., Landfill Rule Change FAQ, Oct. 2016);

<http://regulations.delaware.gov/register/july2017/MSWL%20State%20Plan.pdf> (Delaware Dept. of Nat. Res. and Envi. Control, State Plan, May 11, 2017); <https://floridadep.gov/air/air-business-planning/content/proposed-111d-state-plan-municipal-solid-waste-landfills>,

<https://floridadep.gov/sites/default/files/2017-04-07-Pre-Hearing-Cf-111%28d%29-State-Plan-Submittal-Package.pdf> (Florida Dept. of Envi. Prot., information page and state plan).

Columbia, four territories and 116 metropolitan areas, recommended one year. Notably, despite its request for more time, New Mexico was in fact able to develop, approve, and submit a plan within the nine-month period. This is not to dismiss the legitimate concerns raised by the states with respect to the time required to conduct their requisite public process. But it is evidence that even in the face of such process requirements, the Landfill Emission Guidelines state plan is not so complex or burdensome that it cannot be prepared in less than a year. In any case, EPA has provided no reasons for establishing a period that is significantly longer than any state requested.

Creating a three-year delay before EPA could begin the process of federal implementation is particularly unnecessary where some states likely have no intention of ever submitting a state plan. Fifteen states currently operate under the federal plan (*see* 81 Fed. Reg. at 59,287) and although a number of states likely would have submitted plans but for EPA's stay of the rule, a number of others doubtless would not. In light of the fact that EPA has not shown a need to provide three years for states that *do* intend to submit plans, waiting three years before commencing action for states that *do not* intend to submit plans accomplishes nothing but unnecessary delay in addressing significant sources of GHGs and other pollutants. This delay is all the more egregious when combined with EPA's proposal to expand the time for federal implementation from six months to two years, discussed below.

Finally, EPA manufactures a newfound discomfort with its prior finding that nine months was sufficient time because there is a "federal backstop"—that is, where a state cannot meet the deadline, it is simply subject to a federal plan. *See* 83 Fed. Reg. 54530 (noting that its prior reliance on the "federal backstop" was "inadequate" to explain why nine months was sufficient time to prepare a state plan). This is unavailing. For one, EPA need not have relied on the "federal backstop" argument to explain why nine months' time is sufficient to prepare a state plan. There are other justifications for a nine-month timeline, including that plans under Section 111(d) are not particularly complex. At bottom, however, it is incumbent on EPA to secure reductions of harmful pollutants *as quickly as possible*, not to assist states in avoiding a "federal backstop." It was the clear goal of Congress, in promulgating the 1970 amendments to the Clean Air Act, to ensure "swift and aggressive action" on the part of both EPA and the states to implement air pollution-control measures that protect public health and welfare. 40 Fed. Reg. at 53,342-43. If a state did not want to be subject to a federal plan, it could prioritize development of its own plan. But where a state either chooses not to do so, or fails to act within a reasonable period of time, Congress wanted to ensure that public health and safety would not be compromised. Furthermore, just because a state is subject to a federal plan does not mean it is precluded from developing its own plan; it just means there is an incentive to "expedite[] a State's or Tribe's responsibility for implementing the emission guidelines as intended by Congress." 64 Fed. Reg. 60,689, 60,699.⁵⁵ And as discussed above, there is a relief valve where

⁵⁵ When it promulgated the current federal plan, EPA clarified, "Landfills covered in the State or Tribal plan are subject to the Federal plan until the State or Tribal plan is approved and becomes effective. Upon the effective date of the State or Tribal plan, the Federal plan no longer applies to landfills covered by the State or Tribal plan and the State, Tribe or local agency will implement and enforce the State or Tribal plan in lieu of the Federal plan." Federal Plan Requirements for Municipal Solid Waste Landfills That

EPA finds that a state has demonstrated the need for more time to submit its plan. *See* 40 C.F.R. § 60.27(a).

b. *Resubmittal of already-submitted state plans*

In addition to proposing to extend arbitrarily the deadline for state plan submissions, EPA also proposes to require states that have already submitted their plans (California, New Mexico, Arizona, and West Virginia) to resubmit them and requests comment on that proposal. 83 Fed. Reg. at 54,530. EPA asserts that such a requirement “would ensure consistent treatment of all states and state plans, avoid confusion regarding deadlines, and allow the EPA to undertake a completeness review for state plans already submitted to the EPA.” *Id.* None of these rationales for requiring resubmission and further delaying EPA’s approval of submitted state plans has merit.

As a preliminary matter, EPA denies or at least fails to acknowledge that the completeness criteria impose an additional burden on states. EPA claims the proposed Delay Rule (including its addition of completeness criteria) would “not alter any of the submission requirements states already have under any applicable emission guideline.” 83 Fed. Reg. at 54,530, n.6. But contrary to EPA’s inference, the proposed completeness criteria *would* alter the submission requirements by imposing *additional* requirements. As discussed below, these additional requirements are arbitrary and capricious and should not be imposed on any states, let alone those that have already submitted their plans.

Regardless of whether the criteria do or do not impose additional requirements, requiring states that have already submitted state plans to resubmit places a burden on these states that EPA fails to justify. For one, EPA has not explained how requiring resubmission would ensure “consistent treatment” across states or “avoid confusion regarding deadlines,” or why either alleged result justifies the added burden on compliant states. Given that the deadline for EPA’s review of three of the four submitted state plans has already passed (and in the case of West Virginia, a response is due on or about January 13, 2019), it becomes clear that the sole function of requiring compliant states to resubmit their state plans is to enable EPA to avoid liability for failing to timely review them.

EPA also solicits comment on whether, if EPA does not require resubmission, it should still evaluate the already-submitted plans for compliance with the proposed new completeness criteria. 83 Fed. Reg. at 54,530. This alternative is baseless for similar reasons. EPA already should have completed its review of these state plans. Applying the completeness criteria to the already-submitted plans would effectively result in the unlawful retroactive application of new, more burdensome criteria. In any event, as discussed below, EPA’s proposed completeness criteria are unwarranted and should not be applied to any state plans, let alone those already submitted.

Commenced Construction Prior to May 30, 1991 and Have Not Been Modified or Reconstructed Since May 30, 1991, 64 Fed. Reg. 60,689, 60,699 (Nov. 8, 1999).

c. Completeness Review

In the ACE Rule, EPA proposes to take six months to apply criteria to determine the completeness of state plans, separate and distinct from EPA's substantive evaluation of whether a state plan is "satisfactory." 83 Fed. Reg. at 44,772. EPA proposes to apply this "completeness review" to the Landfill Emission Guidelines. 83 Fed. Reg. at 54,530. There has been no need of a completeness review in the past, and EPA fails to justify it now, particularly as applied to the Guidelines.

The primary basis for EPA's proposal to conduct a separate "completeness review" is that a "similar" review is required under Section 110. 83 Fed. Reg. at 44,772. This is not a valid justification: Again, SIPs under Section 110 are inherently more complex, and "similar" does not mean "the same." The mere fact that EPA proposes to use "criteria" to determine whether a submission is complete is certainly no basis for an additional six months' delay. *See* 83 Fed. Reg. 54,530 ("Because the EPA is proposing to apply the completeness criteria [here] . . . it is important that the EPA have the opportunity to undertake a completeness review for all state plans.").

The fact that there is no valid basis for the proposed completeness review suggests it is nothing more than a delay tactic. For one, EPA claims, "the addition of completeness criteria in the framework regulations does not alter any of the submission requirements states already have under any applicable emission guideline." 83 Fed. Reg. at 54,530 n.6. While this is incorrect—as discussed below, the proposed criteria actually add several substantive requirements to what is currently required—if it were true, it would only demonstrate that the completeness criteria serve no purpose. And where EPA fails to conduct a review or to affirmatively deem a plan complete within the six-month period, there is no consequence; the submission is simply deemed complete by operation of law, and EPA's substantive review ensues. As noted in their comments on the proposed ACE Rule, the States have reason to be skeptical of EPA's intentions: Under the 2008 ozone NAAQS, for example, EPA has systematically disregarded deadlines for completeness determinations. *See, e.g.,* Order Granting in Part Motions and Cross-Motions for Summary Judgment, *Sierra Club v. McCarthy*, Case No. 4:14-cv-05091-YGR, 2015 WL 3666419, at *3-4 (N.D. Cal. May 7, 2015). In that case, EPA only complied with its mandatory duty to issue findings of failure to submit completed SIPs (which would trigger subsequent implementation deadlines under the statute) after a court ordered it to do so, causing long delays to an already lengthy process.

As noted above, contrary to EPA's claim, the completeness criteria actually impose several additional substantive requirements on states. Several of the criteria have no application in the context of the Landfill Emission Guidelines.⁵⁶ Others simply impose an undue burden to

⁵⁶ For example, under the proposed Delay Rule, states would be required to, among many other things, "[d]emonstrat[e] that the state plan submission is projected to achieve emissions performance under the applicable emissions guidelines" and "[i]dentify emissions standards for each designated facility." Subpart Ba Completeness Criteria, 8(d) & (b). For SIPs and state plans under some emission guidelines, this information might be useful, but it has no value here, where EPA has proposed an emission guideline on the basis of a best system of emission reduction (BSER) that essentially sets an emission standard that

no practical effect. For example, criterion 1 requires that a state include a “formal letter of submittal from the Governor or the Governor’s designee requesting EPA approval,” and criterion 5 requires that it provide “[e]vidence that the State followed all of the procedural requirements of the State’s laws and constitution in conducting and completing the adoption/issuance of the plan.” 83 Fed. Reg. 44,772. Another example is the requirement that a state show that each emission standard is “nonduplicative,” among other things (*id.*, criterion 8(f)), which requires the state to prove a negative—an impossible requirement to meet. EPA indicates no specific need for any of this information, nor does it explain how it furthers the statute’s purpose. The only purpose the additional requirements conceivably serve is to provide manufactured cover for EPA’s argument that the states need more time to complete their state plans and that EPA needs more time to review them.

Under the circumstances—where there is no demonstrated need to impose requirements that will only complicate and delay what should be a “swift and aggressive” process—the criteria are arbitrary and capricious. EPA should continue to evaluate whether a plan is “complete” within the scope of its substantive review and commit to issuing a decision on the submission within four months rather than the 18 months it proposes to give itself. Where, in the course of its substantive review, EPA notes that an element of the plan is incomplete or insufficient, it can—as it has always done—communicate the deficiency to the state and either proceed with the review while the state works concurrently to address the deficiency or, if necessary, suspend its review pending cure.

Finally, without justification, EPA has arbitrarily changed the trigger for subsequent deadlines from the date a state plan’s submittal is due—which is established by regulation—to the date EPA determines such submission is complete. It is wholly inappropriate to tether the successful implementation of emission guidelines to dates *un*-certain. (Were this the rule now, EPA would likely assert that it was not obligated to impose a federal plan on any state that failed to timely submit a state plan, because that clock—which is ultimately tied to EPA’s completeness determination—never started running.)

d. EPA review of state plans

In addition to creating an unjustified six-month period for completeness review, EPA also proposes to extend its deadline for reviewing and approving or disapproving submitted state plans from four months (including reviewing for completeness) to 12 months (following the new six-month completeness review period). This proposed delay is unsupported and unjustified and therefore arbitrary and capricious.

EPA attempts to justify this delay by first reiterating its explanation in the ACE Rule: “given the flexibilities that CAA section 111(d) and emission guidelines generally accord to states, and the EPA’s prior experience on reviewing and acting on SIPs under CAA section 110, it is appropriate to extend the period for the EPA’s review . . .” 83 Fed. Reg. at 54,530. But as

all affected facilities must meet. Compliance with the emission guideline will not be demonstrated by the attainment of a particular ambient air quality standard, but by monitoring emissions from each facility. *See, e.g.*, 40 C.F.R. § 60.39f(b).

explained above, it is unreasonable for EPA to equate the Section 111(d) timelines to the SIP timelines under Section 110 given the vastly different complexities of the state submissions under each section. And, as also explained above, such an extension is particularly unjustified here, where states are merely updating existing submissions, not starting from scratch.

EPA's remaining justification for extending its review period also lacks merit. EPA claims the delay "would provide adequate time for the EPA to review plans and follow notice-and-comment rulemaking procedures to ensure an opportunity for public comment on the EPA's proposed action on a state plan." *Id.* EPA thus implies (without support) that its proposed approval or disapproval of a state plan would fall within the scope of a notice-and-comment rulemaking under Clean Air Act section 307(d) (42 U.S.C. § 7607). To the extent EPA asserts this as basis for the proposed delay, it must justify that characterization.⁵⁷ Since EPA has provided no explanation to support its proposed extension here, its proposal is arbitrary and capricious.

e. Promulgation of federal plans

EPA states that it is "reiterating the rationale in the proposed ACE rule" for *quadrupling* from six months to two years the time for promulgating a federal plan if a state fails to submit an approvable plan. 83 Fed. Reg. at 54,531. The rationale asserted in the ACE rule is unavailing in the abstract, and particularly inappropriate as applied to the Landfill Emission Guidelines.

In the one paragraph devoted to the issue in the ACE proposal, EPA's only explanation for the proposed 18-month extension is that it is consistent with the deadline in Section 110 for Federal Implementation Plans (FIPs) under the NAAQS for criteria pollutants. 83 Fed. Reg. at 44,771. However, as discussed above, an implementation plan for a Section 111(d) guideline applicable to a single source category is not comparable in complexity to a NAAQS implementation plan. Timelines applicable to NAAQS SIPs and FIPs are therefore not inherently appropriate for Section 111(d) plans.

EPA attempts to justify the two-year period for federal plan development in the Landfill Emission Guidelines context, asserting that "the federal plan . . . may be more complex and time intensive since it must be tailored to meet the needs of many states." 83 Fed. Reg. at 54,531. However, EPA offers no explanation of the nature of such tailoring. The existing federal plan (codified at 40 C.F.R. Part 62, Subpart GGG) contains no provisions explicitly referencing the special needs of any particular state, and does not identify with particularity the affected facilities. Instead, it defines "designated facilities" generically, 40 C.F.R. § 62.14352, and

⁵⁷ EPA's approval or disapproval of state plans is not listed in Section 7607(d). States are required to provide a hearing on their proposed plans (with 30 days' notice). 40 C.F.R. §§ 60.23(c)(1), (d). They are further required to submit to EPA a list of all witnesses who appeared at the hearing and a summary of their testimony, and to retain for two years a record of the full text of any testimony. *Id.*, §§ 60.23(e), (f). There is no requirement that EPA provide a public hearing where it proposes to approve or disapprove a state plan. (In contrast, where EPA promulgates a federal plan for a state or proposes to revise the state's plan, notice and hearing are required. *See id.*, §§ 27(f), 60.29.)

provides that the federal plan applies to each designated facility that is not covered by an EPA-approved and currently effective state or tribal plan. 40 C.F.R. § 62.14350. EPA does not explain why a similar approach cannot be used for the current Landfill Emissions Guidelines.

3. It is irrelevant that the proposed Delay Rule is “beneficial” to EPA

EPA also justifies its proposed delay on the basis that this “would be beneficial to the EPA.” This is a wholly inappropriate justification for delaying the implementation of critical measures to control emissions of pollutants that EPA has found endanger human health and welfare. For one, nowhere does Congress indicate that EPA is to consider what might be “beneficial” to it in developing, implementing and enforcing the regulations that implement the Clean Air Act’s statutory mandates. For EPA to assert its own benefit generally is arbitrary and capricious under *State Farm*, 463 U.S. at 43. But it is beyond the pale under the circumstances here, where EPA has already flouted its nondiscretionary duties to implement valid measures to protect human health and welfare even though it is clear that time is of the essence in implementing such measures.

To the extent EPA is suggesting it lacks agency resources to timely implement the Landfill Emission Guidelines, this is improper justification for it to codify an otherwise unreasonable delay. *See Am. Hosp. Ass’n v. Burwell*, 812 F.3d 183, 191 (D.C. Cir 2016) (lack of agency resources is not a sufficient reason to delay required agency action).

4. The possibility that market forces might compel early compliance does not justify regulatory delay

EPA further attempts to justify the proposed Delay Rule by stating that facilities have an incentive to install controls prior to being required to do so, as that would enable them to begin monetizing recovered gas sooner, decreasing the net costs of the controls. *See* 83 Fed. Reg. at 54,531. But as EPA acknowledges, “some sources may choose to wait until requirements are enacted prior to installing controls.” *Id.* Moreover, EPA cannot simply abdicate its responsibility to implement a regulation on the basis that market forces may eventually generate a result similar to what the regulation seeks to achieve. Indeed, regulatory action is generally needed to address market failures. It is improper to delay regulation on the assumption that the invisible hand will make the market function perfectly (contrary to how it has functioned in the past without regulation) and therefore not regulate.

C. EPA Has Not Conducted a Requisite Regulatory Impact Analysis and Has Therefore Ignored the Substantial Environmental and Human Health Costs That the Proposed Delay Rule Will Create

In the proposed rule, EPA declines to conduct a regulatory impact analysis (RIA) on the ground that, “although the costs and benefits of harmonizing the timing requirements of state plans cannot be quantified due to inherent uncertainties, the EPA believes that they will be minimal and requests comment on this.” 83 Fed. Reg. at 54,531. Indeed, EPA denies that the proposed Delay Rule will have any health and safety impacts whatsoever. *See id.* at 54,532 (concluding that this action is not subject to Executive Order 13045, which concerns the

protection of children from environmental health and safety risks, in part because the proposed Delay Rule “is a procedural change and does not have any impact on human health or the environment.”⁵⁸ But EPA cannot prejudice the outcome of any RIA as a means to justify not conducting one. That is especially true here, where the evidence overwhelmingly shows that any delay in reducing GHG emissions is likely to have catastrophic—and costly—consequences.

Pursuant to Executive Order 12291,⁵⁹ an RIA is required for significant and economically significant regulatory actions, as defined under sections 3(d)-(f) of Executive Order 12866.⁶⁰ An economically significant regulatory action is one that is likely to impose costs, benefits, or transfers of \$100 million or more in any given year, or “adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities.” *Id.* § 3(f)(1).

EPA’s first error is in focusing only on the costs to states in delaying submission of their compliance plans. But those are not the only costs EPA must consider. “In addition, ‘cost’ includes more than the expense of complying with regulations; any disadvantage could be termed a cost ... including, for instance, harms that regulation might do to human health or the environment.” *Michigan v. EPA*, 135 S. Ct. at 2707; *see also* OMB Circular A–94, *Guidelines and Discount Rates for Benefit–Cost Analysis of Federal Programs*, Appendix A (1992) (defining “benefit-cost analysis” as “[a] systematic quantitative method of assessing the desirability of government projects or policies when it is important to take a long view of future effects and a broad view of possible side-effects”).

By EPA’s own assessment, the monetized benefits of the Landfill Emission Guidelines—and thus the costs of the proposed Delay Rule—would be significant, and at any rate, greater than \$100 million annually. EPA stated, “the final rule’s estimated methane emission reductions and secondary CO₂ emission reductions in the year 2025 would yield global monetized climate benefits of \$200 million to approximately \$1.2 billion, depending on the discount rate. Using the average social cost of methane (SC–CH₄)⁶¹ and the average social cost of CO₂ (SC–CO₂), each at a 3-percent discount rate, results in an estimate of about \$440 million in 2025 (2012\$).” *See* 81 Fed. Reg. at 59,280. EPA further estimated the net *annual* benefits of the rule to be \$390 million by 2025. *Id.* at 59,280. (According to Table 1 in EPA’s 2016 RIA for the Guidelines, the average annual net benefits of the Guidelines from 2019 to 2025 would actually be greater—\$397 million.) Accordingly, the costs of the “disadvantages” imposed by the Delay Rule would thus be at least \$1.5 billion in forfeited net benefits over the course of the delay (four years additional

⁵⁸ Given the flaws in EPA’s analysis of the applicability of Executive Order 13045, EPA has not adequately justified why this proposed Delay Rule is not subject to that Executive Order.

⁵⁹ 46 Fed. Reg. 13,193 (Feb. 17, 1981), 3 C.F.R. 127 (1982).

⁶⁰ 58 Fed. Reg. 51,735 (Oct. 4, 1993), 3 C.F.R. 638 (1994).

⁶¹ “The SC–CH₄ and SC–CO₂ are the monetary values of impacts associated with marginal changes in methane and CO₂ emissions, respectively, in a given year. It includes a wide range of anticipated climate impacts, such as net changes in agricultural productivity, property damage from increased flood risk, and changes in energy system costs, such as reduced costs for heating and increased costs for air conditioning.” 81 Fed. Reg. at 59,280.

delay x \$390 million per year), and potentially a great deal more. This is not, as EPA suggests, “minimal.”

Without an RIA that properly accounts for benefits and costs, EPA’s proposal is procedurally flawed and must be withdrawn.

D. The Proposed Delay Rule Is Improperly Predicated on the Proposed ACE Rule

Contrary to EPA’s assertion, the proposed ACE Rule would not apply to the Landfill Emission Guidelines. In any event, the ACE Rule—including that part of the rule on which the proposed Delay Rule is predicated—is unlawful.

As proposed, the ACE Rule includes a new 40 C.F.R. Part 60, subpart Ba regulation that would “change the timing requirements for the submission of state plans, the EPA’s review of state plans, and the issuance of federal plans to more closely align the procedures to that provided under CAA section 110.” 83 Fed. Reg. at 54,529. EPA notes that the proposed Delay Rule is “predicated on the proposed timing requirements in 40 CFR part 60, subpart Ba,” and that it will need to “finalize the relevant sections of 40 CFR part 60, subpart Ba that pertain to this rule either prior to or concurrently with finalizing this rule.” *Id.*

1. As proposed, the ACE Rule’s implementation changes do not apply to the Landfill Emission Guidelines

EPA attempts to characterize the proposed Delay Rule as nothing more than a necessary housekeeping measure. Specifically, EPA asserts that the purpose of the proposed Delay Rule is simply to update the cross-references to the “old implementing regulations” in the Landfill Emission Guidelines and to “harmonize with the [ACE Rule’s] proposed new timing and completeness requirements for state and federal plans.” 83 Fed. Reg. at 54,527. “Without further action,” EPA continues, “the promulgation of the proposed new implementing regulations would not be sufficient to change the timing requirements for the [Emission Guidelines], even though it is an ongoing CAA section 111(d) action.” *Id.*

As proposed, the ACE Rule would not apply to the Landfill Emission Guidelines. *See* 83 Fed. Reg. at 44,803 (proposed 40 C.F.R. § 60.20a, which states: “Applicability. (a) The provisions of this subpart apply to States upon publication of a final emission guideline under § 60.22a(a), *if such final guideline is published after [date of publication of final rule in the Federal Register].*” (emphasis added)). The Landfill Emission Guidelines were published on August 29, 2016, two years (and counting) *before* the proposed ACE Rule will be published, if it is ever published. *See* 81 Fed. Reg. 59,276 (Aug. 29, 2016).

However, in the preamble to the proposed ACE Rule, EPA stated its intent to stretch the ACE Rule’s applicability to even *final* emission guidelines where state plans were still in the review process—rules that EPA characterized as “ongoing.” *See* 83 Fed. Reg. at 44,769 (“EPA is aware that there are a number of cases where state plan submittal and review processes are still ongoing for existing 111(d) emission guidelines. ... EPA is proposing to apply the changes to timing requirements ... to all ongoing emission guidelines already published under section 111(d).”).

To the extent EPA would characterize the Landfill Emission Guidelines as “ongoing” (because state plans have not yet been approved and thus “are still in the review process”), it would be capitalizing on its own wrongdoing: the only way the Guidelines could be considered ongoing at all is because EPA failed to comply with its mandatory duties to implement them. (This is likely another reason EPA would require compliant states to resubmit their state plans, to bolster EPA’s assertion that as to those states, too, the Guidelines are “ongoing.”) As California, Illinois, Maryland, New Mexico, Oregon, Rhode Island, Vermont, Pennsylvania, and the California Air Resources Board (ARB) have argued in *California v. EPA*, EPA’s failure to review and approve any submitted state plans or to promulgate a federal plan applicable to all other states by its own deadlines violates the Clean Air Act, 42 U.S.C. § 7604(a)(2). EPA cannot now rely on its unlawful failure to meet its own deadlines as a justification for applying the ACE Rule changes to the Landfill Emission Guidelines.

2. The proposed ACE Rule—and EPA’s proposed Subpart Ba regulations—are unlawful

Even if the ACE Rule would apply to the Landfill Emission Guidelines, it is unlawful as proposed. EPA cannot justify one proposed rule by relying on another, unlawful proposed rule. Both ARB and a coalition of 19 states and 8 other jurisdictions submitted extensive comments opposing the ACE Rule and articulating its legal and technical shortcomings.⁶² These comments highlight the logical fallacies, technical inaccuracies, and other issues that make the proposed ACE Rule unlawful and subject EPA to legal challenge if it were to finalize it, as proposed.

In federal court filings, EPA has stated that “even if EPA does not finalize the power plant portion of the ACE Rule proposal on the anticipated timeline, that does not preclude EPA from finalizing the potential changes to Subpart Ba separately by April 2019.” *California v. EPA*, EPA’s Reply ISO Mot. to Stay, Dkt. 76 at 7. This does not get EPA very far: Not only is the proposed ACE Rule unlawful as a whole, so too are the proposed Subpart Ba regulations that EPA now claims would be applicable to the Landfill Emission Guidelines. Thus, finalizing the proposed Subpart Ba regulation separately would not shield that regulation from legal challenge.

The proposed Subpart Ba regulation would make broad changes to the implementing requirements under Section 111(d). Some of these changes are patently unlawful, including EPA’s proposal to remove the term “emission guideline,” which “arguably required EPA to provide a presumptive emission standard,” and to use instead the term “guidance document,” which “does not require EPA to provide a presumptive emission standard.” *See* 83 Fed. Reg. at

⁶² *See* Comments of the Attorneys General of New York, California, Connecticut, Delaware, Illinois, Iowa, Maine, Maryland, Massachusetts, Minnesota (by and through its Minnesota Pollution Control Agency), New Mexico, North Carolina, Oregon, Pennsylvania, Rhode Island, Vermont, Virginia, Washington, the District of Columbia, the cities of Boulder (CO), Chicago, Los Angeles, New York, Philadelphia, and South Miami (FL), and the County of Broward (FL) on [ACE Rule], Oct. 31, 2018, Doc. ID: EPA-HQ-OAR-2017-0355-21117; California Air Resources Board’s Comments on Proposed [ACE] Rule, Oct. 31, 2018, Doc. IDs: EPA-HQ-OAR-2017-0355-24806, EPA-HQ-OAR-2017-0355-24810. We hereby incorporate these comments by reference and request that the full comments (which are attached) be included in the administrative record.

44,770, table 4. Section 111(d) is designed to ensure that the best systems of emission reduction (BSER), as determined by EPA, are actually implemented, via state or, if necessary, federal plans. Yet, by shifting terminology, the proposed regulation instead appears to afford states improper authority to depart from EPA's BSER conclusions and to potentially avoid imposing controls. Functionally, the proposed changes eviscerate Section 111(d)'s core purpose of driving state-level emissions planning in response to a firm federal emissions target, replacing it with a series of hortatory guidance documents that would likely fail to protect public health. The Subpart Ba proposal departs from statute and cannot be a basis for further illegal actions in this context.

EPA's proposed changes to the Section 111(d) implementation timelines are also legally suspect, because EPA has not provided, nor could it provide, any valid justification for a change that will significantly delay EPA's implementation of important air-pollution-control measures. EPA has stated that it is necessary to change the implementation timeline for emission guidelines to "appropriately align" with the timeline under Section 110. 83 Fed. Reg. 44,769. Yet, as discussed above, EPA itself has admitted this is not legally required; nor do any practical considerations counsel otherwise. Again, EPA cites the amount of "work, effort, and time" required to develop a state plan. But earlier, when EPA was *not* trying to write a get-out-of-jail-free card for itself, it recognized that "Section 111(d) plans [are] much less complex than the SIPs," *see* 40 Fed. Reg. at 53,345, in part because "[e]xtensive control strategies are not required, and after the first plan is submitted, subsequent plans will mainly consist of adopted emission standards." *Id.*

EPA has thus provided no valid justification for its proposal in the ACE Rule to delay implementation of Section 111(d) emission guidelines. And, because EPA's proposed Subpart Ba regulations are arbitrary and capricious, they cannot support the proposed Delay Rule. For reasons discussed above, and in keeping with the purpose of the Clean Air Act, EPA should be working to implement emission guidelines *more* quickly, not *less*.

E. EPA Has Failed to Comply with its Executive Order Mandates

To satisfy its obligations to comply with various executive orders, EPA states that the proposed Delay Rule will not have certain "implications" that would subject it to those orders. But EPA's conclusory statements, with no analyses, are insufficient and, in many respects, contravened by facts in the record. Further analyses are required.

1. EPA has failed to consider fundamental cooperative federalism principles, in violation of the Clean Air Act and Executive Order 13132

Although it is required to fully consider federalism implications under Executive Order 13132,⁶³ EPA claims the proposed Delay Rule "does not have federalism implications" because "[i]t will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government." 83 Fed. Reg. at 54,532. In fact, the proposal—which leaves states without

⁶³ 64 Fed. Reg. 43,255 (Aug. 10, 1999).

a coherent federal framework for controlling landfill GHG emissions—improperly departs from the successful federalism structure of the Clean Air Act.

The Act’s current form reflects the importance of federal standards acting as critical adjuncts to state pollution control. The standards prevent races to the bottom on regulatory leniency, ensure a fair regulatory playing field among the states, and ensure states need not expend undue resources of their own working to address national problems. The Act recognizes the need for “Federal financial assistance and leadership”⁶⁴ and is rooted in a cooperative federalism structure for these reasons,⁶⁵ Section 111’s balanced state and federal planning process reflects this core cooperative federalism structure.

The proposed Delay Rule is inconsistent with this structure. It (1) fails to establish a meaningful and effective unified federal regulatory framework for years to come despite Section 111’s directive; (2) fails to curb harmful GHGs that are already having devastating impacts on our States; and (3) requires individual states to spend their own resources if they wish to control the emission of harmful pollutants in their jurisdictions in the absence of federal support, funds, and enforcement tools that would accompany a Section 111(d) planning process. In effect, the proposed Delay Rule shirks EPA’s federal duties while leaving states with a complex regulatory problem that will demand state resources and be more difficult to solve without federal leadership. These are substantial direct effects on the states that militate against proceeding with the proposal; at the very least, they should be properly disclosed.

EPA’s blanket statement that there are no impacts, without any analysis or consideration of these principles, does not satisfy the intent of the Clean Air Act or Executive Order 13132. Moreover, the proposed Delay Rule does in fact impact states, and arguing otherwise is illogical: it changes the time in which states must submit state plans, adds additional criteria states must meet to satisfy the “completeness criteria” requirements, could require states that have already submitted their state plans to resubmit them, and will result in increased emissions of NMOC and GHGs. The only conceivable benefit this proposed Delay Rule offers is for the regulated industry to postpone installing the required controls and for EPA to extend its unlawful de facto stay of the Guidelines.

2. EPA has arbitrarily dismissed the environmental justice impacts of the proposed Delay Rule, contravening the requirements of Executive Order 12898

Under Executive Order 12898,⁶⁶ federal agencies such as EPA must identify and address “disproportionately high and adverse human health and environmental effects” of their actions on minority and low-income communities. EPA argues that the proposed Delay Rule is not subject to Executive Order 12898 in part because it “is only implementing a procedural change

⁶⁴ 42 U.S.C. § 7401(a)(4).

⁶⁵ See, e.g., *GenOn REMA LLC v. U.S. EPA*, 722 F.3d 513, 516 (3d Cir. 2013) (collecting cases to this effect).

⁶⁶ 59 Fed. Reg. 7629 (Feb. 16, 1994).

and EPA does not anticipate that it will have any material impact on human health or the environment.” 83 Fed. Reg. at 54,532. This assertion is not supported by the evidence.

As discussed above, emission reductions have already been delayed more than a year and would be delayed an additional four years under the proposed Delay Rule, resulting in the annual excess emission of 1,810 metric tons NMOC and 7.1 million metric tons CO_{2e}. Communities located in the vicinity of landfills would most directly and immediately benefit from implementation of the Guidelines (because of the adverse health effects associated with landfill gases) and thus be disproportionately impacted by the proposed delay. Such communities tend to be low-income and minority communities. These communities are also disproportionately impacted by the effects of climate change insofar as individuals may lack resources necessary to mitigate or avoid certain harms attributable to climate change. By failing to acknowledge that low-income and minority populations will be disproportionately impacted by the proposed Delay Rule and failing to analyze the extent of that impact, EPA has not met the requirements of Executive Order 12898.

3. EPA has failed to consult Native American Tribal Governments, as required by Executive Order 13175

Contrary to its obligation under Executive Order 13175,⁶⁷ EPA has not consulted and/or coordinated with Native American Tribal Governments. EPA admits that there are three tribes with landfills but argues they are not impacted. EPA’s assertion is not supported by fact. EPA has failed to consult with tribes to determine whether the tribes with landfills on their lands are impacted. And EPA has failed to analyze impacts to tribal members that live near other landfills.

Adopting the proposed Delay Rule without consultation undermines Tribal sovereignty and is likely to decrease air quality on Tribal lands. Contrary to EPA’s conclusory and unsupported assertions, this proposal will impact native peoples by harming tribal health and accelerating climate change. Many tribal communities are impacted by air pollution and/or they are seeing the effects of climate change through increased storm surge, erosion, flooding, prolonged droughts, wildfires, and forests being devastated by insect pest outbreaks. Native people are likely to suffer disproportionately from the effects of climate change on wildlife, fish, and native plants, which they may depend on for subsistence and maintaining traditional cultural practices. Because the proposed Delay Rule may thus have disproportionately high, adverse impacts on native tribes and indigenous populations, EPA must consult with Native American Tribal Governments.

III. CONCLUSION

EPA notes in a footnote of the proposed Delay Rule that it is “separate and distinct from the ongoing reconsideration proceeding related to the [Guidelines].” 83 Fed. Reg. at 54,531. It is apparent that the function of the proposed Delay Rule is thus to enable EPA to avoid implementing the Landfill Emission Guidelines (and also to evade a judicial order requiring it to comply with its regulatory obligations) while it works to revise—and likely weaken—them. In

⁶⁷ 65 Fed. Reg. 67,249 (Nov. 9, 2000).

light of the overwhelming evidence that time is of the essence in addressing climate change, any action that will delay or weaken measures that will reduce GHG emissions and that has no valid justification is inherently arbitrary, capricious, and contrary to law.

In proceeding with this rulemaking, EPA must give full weight to the available evidence (including the scientific facts and findings presented in the Assessment and IPCC Special Report), and consider the implications of that evidence for its proposed action. It must also provide a “detailed justification” where it proposes to take action on the basis of factual findings that contradict previous findings. *F.C.C. v. Fox*, 556 U.S. at 515. EPA must also conduct a thorough regulatory impact analysis to fully disclose the actual costs of its actions and other analyses required by executive orders. It has failed to do all of those things here. The States strongly urge EPA to withdraw the Delay Rule and to comply with its mandatory duties to implement the Landfill Emission Guidelines immediately.

Sincerely,

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**Comments of the States of California, Illinois, Maryland, New Jersey, New Mexico,
Oregon, Pennsylvania, Rhode Island, and Vermont;
and the California Air Resources Board**

to

**EPA's Proposed Rule, Adopting Subpart Ba Requirements in Emission Guidelines for
Municipal Solid Waste Landfills**

Docket ID No. EPA-HQ-OAR-2018-0695; RIN 2060-AU09

Appendix A: Climate Change Impacts

Our States have already begun to experience adverse impacts from climate change. Based on the overwhelming scientific evidence, those harms are likely to increase in number and severity unless aggressive steps are taken to reduce emissions of carbon dioxide and other greenhouse gases. Summarized below are some of those most significant threats being faced by our States.

CALIFORNIA

Climate change's adverse effects have become impossible to ignore in California. The state weathered a historic five-year drought only to face successive record-setting fire seasons and a variety of other unprecedented phenomena that have harmed (and are likely to increasingly harm) the health and prosperity of Californians from all walks of life and all parts of the state, as described in more detail in a recent report of the California Air Resources Board.¹

Drought conditions beginning in 2012 left reservoirs across the state at record low levels, often no more than a quarter of their capacity. The Sierra snowpack—critical to California's water supply, tourism industry, and hydroelectric power—was the smallest in at least 500 years.² The resulting cutbacks threatened the livelihoods of farmers and fishermen alike. In the Central Valley, the drought cost California agriculture about \$2.7 billion and more than 20,000 jobs in 2015 alone.³ In addition, the drought led to land subsidence, due to reduced precipitation and increased groundwater pumping, and the death of 129 million trees throughout the state.⁴

Even prior to the drought, the U.S. Forest Service had found that California was at risk of losing 12 percent—over 5.7 million acres—of the total area of forests and woodlands in the state due to insects and disease thriving in a hotter climate.⁵ Several pine species are projected to lose around half of their basal area.⁶ And a majority of the ponderosa pine in the foothills of the central and southern Sierra Nevada Mountains has already died, killed by the western pine beetle and other bark beetles.⁷ The increasing threat from these insects is driven in large part by warmer summer temperatures attributable to climate change.⁸ The very high levels of tree mortality led Governor Brown to issue an Emergency Proclamation on October 30, 2015, directing state

¹ See generally California Air Resources Board, *California's 2017 Climate Change Scoping Plan Update: The Strategy for Achieving California's 2030 Greenhouse Gas Target*, (Nov. 2017), https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf.

² See NOAA, National Centers for Environmental Information: "Multi-Century Evaluation of Sierra Nevada Snowpack," <https://www.ncdc.noaa.gov/news/multi-century-evaluation-sierra-nevada-snowpack>.

³ *California's 2017 Climate Change Scoping Plan Update*, *supra*, at 7.

⁴ U.S. Forest Service, *Record 129 Million Dead Trees in California* (2017), https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd566303.pdf.

⁵ *California's 2017 Climate Change Scoping Plan Update*, *supra*, at 7.

⁶ *Id.*

⁷ *Id.*

⁸ Jeffry B. Mitton and Scott M. Ferrenberg, *Mountain Pine Beetle Develops an Unprecedented Summer Generation in Response to Climate Warming*, THE AMERICAN NATURALIST, Vol. 179, No. 5 (May 2012).

agencies to identify and take action to reduce wildfire risk through the removal and use of the dead trees.⁹

Notwithstanding the Governor's Proclamation, the hotter, drier weather and millions of dead trees have increasingly accelerated the damage from wildfires. The 2018 season—the worst on record—featured the Camp Fire, which devastated the town of Paradise, California, killing at last 85 people, destroying thousands of homes, forcing the entire regional community to evacuate, burning more than 150,000 acres,¹⁰ and severely impacting air quality across northern California.¹¹ Prior to 2018, the worst year on record was 2017, and before that, 2015.¹² Climate change is expected to make longer and more severe wildfire seasons “the new normal” for California.¹³ Besides the immediate threats they pose to life and property, wildfires significantly impair both air quality (via smoke and ash that can hospitalize residents) and water quality (via the erosion of hillsides stripped of their vegetation).

Off the coast, rising ocean temperatures and ocean acidification have spurred toxic algal blooms, resulting in high levels of the neurotoxin domoic acid.¹⁴ This toxin has hit California's economically valuable Dungeness crab fishery particularly hard. From 2015 to 2017, domoic acid contamination forced California to close the fishery for parts of the season in order to protect consumers from serious health risks, with the 2015-16 season declared a federal disaster.¹⁵ Other fisheries have suffered a similar fate. The Dungeness crab fishery is expected to decline significantly in the future as acidification increases.¹⁶ In addition, high levels of domoic acid are poisoning marine mammals, and have been linked to reproductive failure (including high rates of miscarriage and premature birth) among California sea lions.¹⁷

⁹ “Proclamation of a State of Emergency,” https://www.gov.ca.gov/wp-content/uploads/2017/09/10.30.15_Tree_Mortality_State_of_Emergency.pdf.

¹⁰ See http://www.fire.ca.gov/current_incidents/incidentdetails/Index/2277.

¹¹ Julie Turkewitz and Matt Richtel, *Air Quality in California: Devastating Fires Lead to a New Danger*, NY TIMES (Nov. 16, 2018), <https://www.nytimes.com/2018/11/16/us/air-quality-california.html>

¹² Lauren Tierney, *The Grim Scope of 2017's California Wildfire Season Is Now Clear; The Danger's Not Over.*, WASH. POST (Jan. 4, 2018), <https://www.washingtonpost.com/graphics/2017/national/california-wildfires-comparison/>.

¹³ California Department of Forestry and Fire Protection, *California's Forests and Rangelands: 2010 Assessment*, Ch. 3-7 (2010).

¹⁴ S. Morgaine McKibben et al., *Climatic Regulation of the Neurotoxin Domoic Acid*, 114 PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES 2 (2007).

¹⁵ See Tara Duggan, *Toxin again an issue as Dungeness crab season nears*, S.F. CHRONICLE (Oct. 30, 2017), <https://www.sfchronicle.com/food/article/Dungeness-crab-season-could-be-delayed-again-by-12318483.php>; Mary Callahan, *California's crab fleet awaits share of \$200 million in disaster relief*, SANTA ROSA PRESS-DEMOCRAT (Feb. 15, 2018), <http://www.pressdemocrat.com/news/7996795-181/californias-crab-fleet-awaits-share?sba=AAS>.

¹⁶ Marshall, K.N. et al., *Risks of Ocean Acidification in the California Current Food Web and Fisheries: Ecosystem Model Projections*, 21 GLOB. CHANGE BIOL. 4 (2017).

¹⁷ T. Goldstein et al., *The Role of Domoic Acid in Abortion and Premature Parturition of California Sea Lions (*Zalophus californianus*) on San Miguel Island, California*, JOURNAL OF WILDLIFE DISEASES. 45(1): 91-108 (2009).

California's many miles of coastline, particularly coastal bluffs, make it uniquely vulnerable to sea-level rise and more intense storms. Even if storms do not become more intense or frequent, sea-level rise itself will magnify the adverse impact of any storm surge and high waves on the California coast. Some observational studies report that the largest waves are already getting higher and winds are getting stronger.¹⁸ California is likely to face greater than average sea-level rise, because of gravitational forces and the rotation of the Earth. Recent projections indicate that if no significant greenhouse gas mitigation efforts are taken, the San Francisco Bay Area may experience sea level rise between 1.6 to 3.4 feet, and in an extreme scenario involving the rapid loss of the Antarctic ice sheet, sea levels along California's coastline could rise up to 10 feet by 2100.¹⁹

In addition to damage to the physical environment, increased temperatures California will experience due to climate change will put the health of state residents at risk. Increased hospitalizations for multiple diseases, including cardiovascular disease, ischemic heart disease, ischemic stroke, respiratory disease, pneumonia, dehydration, heat stroke, diabetes, and acute renal failure are associated with increases in same-day temperature.²⁰ Such temperature increases have also been found to be associated with increased risk of preterm delivery²¹ and stillbirths.²² Recent California studies suggest increased mortality risk not only with extreme heat, but also with increasing ambient temperature.²³

In 2018, the State of California produced two substantial reports on the impacts of climate change in California, which incorporate the latest scientific research on the impacts of climate change in California. The first report, published May 2018 titled "***Indicators of Climate Change in California***" examines thirty-six separate indicators and reflects the contributions of dozens of scientists from California's universities, and state agencies, as well as the U.S.

¹⁸ National Research Council of the National Academy of Sciences, *Sea-Level Rise for the Coasts of California, Oregon and Washington: Past, Present, and Future*. National Academies Press (2012).

¹⁹ Griggs, G, Árvai, J, Cayan, D, DeConto, R, Fox, J, Fricker, HA, Kopp, RE, Tebaldi, C, Whiteman, EA (California Ocean Protection Council Science Advisory Team Working Group). *Rising Seas in California: An Update on Sea-Level Rise Science*. California Ocean Science Trust, April 2017.

²⁰ Green R, Basu R, Malig B, Broadwin R, Kim J and Ostro B (2010). *The Effect of Temperature on Hospital Admissions in Nine California Counties*. INTERNATIONAL JOURNAL OF PUBLIC HEALTH 55(2): 113-121. *See also* Basu R, Pearson D, Malig B, Broadwin R and Green S (2012). *The effect of elevated ambient temperature on emergency room visits in California*. EPIDEMIOLOGY 23(6):813-20; Sherbakov T, Malig B, Guirguis K, Gershunov A, Basu R. (2018) *Ambient temperature and added heat wave effects on hospitalizations in California from 1999 to 2009*. ENVIRON RES. 160:83-90.

²¹ Basu R, Malig B and Ostro B (2010). *High ambient temperature and the risk of preterm delivery*. AM J EPIDEMIOLOGY 172(10): 1108-1117.

²² Basu R, Sarovar V, Malig BJ (2018) *Association Between High Ambient Temperature and Risk of Stillbirth in California*. AM J EPIDEMIOL. 183(10):894-901.

²³ Basu R and Ostro BD (2008a). *A multicounty analysis identifying the populations vulnerable to mortality associated with high ambient temperature in California*. AM J EPIDEMIOL. 168(6): 632-637; Basu R, Feng W and Ostro B (2008b). *Characterizing temperature and mortality in nine California counties, 1999-2003*. EPIDEMIOLOGY 19(1): 138 -145; Basu R and Malig B (2011). *High ambient temperature and mortality in California: Exploring the roles of age, disease, and mortality displacement*. ENVIRONMENTAL RESEARCH 111(8): 1286-1292.

National Oceanic and Atmospheric Administration and the U.S. Department of Energy's Lawrence Berkeley National Laboratory.²⁴ A copy of the full "Indicators" report is included in the attachments to the States' comments.

The second report, published August 2018 titled "*California's Fourth Climate Assessment*" includes thirty-three papers from State-funded research, and eleven papers from externally funded researchers, as well as regional summaries and a statewide summary of climate vulnerabilities, and a key findings paper.²⁵ A copy of selected research papers and the regional and statewide summaries and key findings reports are included in the attachments to the States' comments.

Key findings from those reports and other sources include the following:

Temperature Changes and Air Quality Impacts

"Since 1895, annual average air temperatures have increased throughout the state, with temperatures rising at a faster rate beginning in the 1980s. The last four years were notably warm, with 2014 being the warmest on record, followed by 2015, 2017, and 2016. Temperatures at night have increased more than during the day: minimum temperatures (which generally occur at night) increased at a rate of 2.3 degrees Fahrenheit (°F) per century, compared to 1.3°F per century for maximum temperatures."²⁶

"Extremely hot days and nights — that is, when temperatures are at or above the highest 2 percent of maximum and minimum daily temperatures, respectively — have become more frequent since 1950. Both extreme heat days and nights have increased at a faster rate in the past 30 years. Heat waves, defined as five or more consecutive extreme heat days or nights, are also increasing, especially at night. Nighttime heat waves, which were infrequent until the mid-1970s, have increased markedly over the past 40 years."²⁷

In addition, rising temperatures "could lead to increases in ground-level ozone and reduce the effectiveness of emission reductions taken to achieve air quality standards..."²⁸

"A recent detailed analysis suggests that adoption of low-carbon energy in California to reduce GHG emissions 80 percent below 1990 levels would lead to a 55 percent

²⁴ See Office of Environmental Health Hazard Assessment, California Environmental Protection Agency (2018). *Indicators of Climate Change in California*. Available at www.oehha.ca.gov/climate-change/document/indicators-climate-change-california (last visited October 24, 2018) (hereinafter "California Climate Indicators 2018").

²⁵ See California Natural Resources Agency, *California's Fourth Climate Change Assessment* (2018), available at www.ClimateAssessment.ca.gov (last visited October 24, 2018) (hereinafter "California 4th Assessment").

²⁶ California Climate Indicators 2018 at S-4.

²⁷ *Id.* at S-5.

²⁸ California's Fourth Climate Change Assessment, California's Changing Climate 2018: Statewide Summary Report at 40 (Aug. 2018), available at <http://www.climateassessment.ca.gov/state/docs/20180827-StatewideSummary.pdf>. (hereinafter "California Statewide Summary").

reduction in air pollution mortality rates relative to 2010 levels (Zapata et al., 2018). These public health improvements have a value of \$11-20 billion/year in California (Zapata et al., 2018).”²⁹

Human Health Impacts

Climate change poses direct and indirect risks to public health, as people will experience earlier death and worsening illnesses.

“Nineteen heat-related events occurred from 1999 to 2009 that had significant impacts on human health, resulting in about 11,000 excess hospitalizations. However, the National Weather Service issued Heat Advisories for only six of the events. Heat-Health Events (HHEs), which better predict risk to populations vulnerable to heat, will worsen drastically throughout the state: by midcentury, the Central Valley is projected to experience average Heat-Health Events that are two weeks longer, and HHEs could occur four to ten times more often in the Northern Sierra region.”³⁰

“The 2006 heat wave killed over 600 people, resulted in 16,000 emergency department visits, and led to nearly \$5.4 billion in damages. The human cost of these events is already immense, but research suggests that mortality risk for those 65 or older could increase ten-fold by the 2090s because of climate change.”³¹

Environmental Justice Impacts

“Multiple studies of vulnerability and climate impacts indicate that existing inequities can be exacerbated by climate change. For example, the consequences of climate-related water impacts are particularly acute for communities already dealing with a legacy of inequalities. A recent study on drought and equity in California found that low-income households, people of color, and communities already burdened with environmental pollution suffered the most severe impacts caused by water supply shortages and rising cost of water (Feinstein et al., 2017). In a report prepared as part of the Fourth Assessment, Ekstrom et al. (2018) found that while all water districts faced similar challenges during the drought, small water districts (defined as those serving less than 10,000 people or less than approximately 3,300 connections) were less likely to have the resources and capacity to overcome those challenges. These districts are most likely to serve small, rural communities in California. Furthermore, for marginalized populations in rural areas of the state, agricultural actions in response to the drought, including increases in groundwater pumping and crop choices, are increasing and reshaping their vulnerability to drought and water shortage (Greene, 2018).”³²

“Inequities not only exist in varying exposures to climate risk, but also in the availability and implementation of potential adaptation or resilience solutions. Recent research analyzed differences in tree canopy, an important tool for adapting to the effects of extreme heat, at the census block group scale in coastal Los Angeles and found

²⁹ *Id.* at 71.

³⁰ *Id.* at 10.

³¹ *Id.*

³² California Statewide Summary at 36-37.

disparities between canopy in high-income and low-income neighborhoods (Locke et al., 2017). This disparity can have implications for communities because of the benefits tree canopy provides in reducing the negative effects of extreme heat events. A study prepared for the Fourth Assessment provides one of the first estimates of these benefits in one location (Taha et al., 2018).”³³

Tribal and Indigenous Communities Impacts

“Tribes and Indigenous communities in California face unique challenges under a changing climate. Tribes maintain cultural lifeways and rely on traditional resources (e.g., salmon fisheries) for both social and economic purposes. However, tribes are no longer mobile across the landscape. For many tribes in California, seasonal movement and camps were a part of living with the environment. Today these nomadic options are not available or are limited. This is the result of Euro-American and U.S. policy and actions and underpins several climate vulnerabilities. Tribes with reservations/Rancherias/allotments are vulnerable to climate change in a specific way: tribal lands are essentially locked into fixed geographic locations and land status. Only relatively few tribal members are still able to engage in their cultural traditions as livelihoods.”³⁴

Precipitation and Water Supply Impacts

“California has the highest variability of year-to-year precipitation in the contiguous United States.”³⁵ By 2050, “the average water supply from snowpack is projected to decline by 2/3 from historical levels.”³⁶

“Statewide precipitation has become increasingly variable from year to year. In seven of the last ten years, statewide precipitation has been below the statewide average (22.9 inches). In fact, California’s driest consecutive four-year period occurred from 2012 to 2015. In recent years, the fraction of precipitation that falls as rain (rather than snow) over the watersheds that provide most of California’s water supply has been increasing — another indication of warming temperatures.”³⁷

“Spring snowpack, aggregated over the Sierra Nevada and other mountain catchments in central and northern California, declines substantially under modeled climate changes (Figure 6). The mean snow water equivalent (SWE) declines to less than two-thirds of its historical average by 2050, averaged over several model projections under both RCP 4.5 and 8.5 scenarios. By 2100, SWE declines to less than half the historical median under RCP 4.5, and less than one-third under RCP 8.5. Importantly, the decline in spring snowpack occurs even if the amount of precipitation remains relatively stable over the

³³ *Id.* at 37.

³⁴ *Id.* at 10.

³⁵ *Id.* at 24.

³⁶ California’s Fourth Climate Change Assessment, California’s Changing Climate 2018: A Summary of Key Findings from California’s Fourth Climate Change Assessment 6 (Aug. 2018), available at <http://www.climateassessment.ca.gov/state/docs/20180827-SummaryBrochure.pdf>. (hereinafter “California Key Findings”) at 5.

³⁷ California Climate Indicators at S-5.

central and northern California region; the snow loss is the result of a progressively warmer climate. Furthermore, while the models indicate that strong year-to-year variation will continue to occur, the likelihood of attaining spring snowpack that reaches or exceeds historical average is projected to diminish markedly (Pierce et al., 2018) (Figure 6).³⁸

Agriculture Impacts

“Agricultural production could face climate-related water shortages of up to 16% in certain regions. Regardless of whether California receives more or less annual precipitation in the future, the state will be dryer because hotter conditions will increase the loss of soil moisture.”³⁹

“Winter chill has been declining in certain areas of the Central Valley. This is the period of cold temperatures above freezing but below a threshold temperature needed by fruit and nut trees to become and remain dormant, bloom, and subsequently bear fruit. When tracked using “chill hours,” a metric used since the 1940s, more than half the sites studied showed declining trends; with the more recently developed “chill portions” metric, fewer sites showed declines.”⁴⁰

“[I]t is evident from recent droughts that agricultural production will be challenged by water shortages, higher temperatures, changing atmospheric conditions, and conversion of agricultural land to developed uses (Medellín-Azuara et al., 2018; Wilson et al., 2017). Agriculture is the economic foundation for many of California’s communities, particularly rural communities where other employment opportunities are limited. Roughly 6.7 percent of jobs statewide are generated by farms and farm processing, and in the Central Valley the figure is much higher (22 percent) (UC Agricultural Issues Center, 2012). This means that climate change impacts to agriculture, and even nuanced impacts such as shifting cropping patterns, may create hardships in the rural communities where agriculture is foundational. Different crops have different labor demands (Medellín-Azuara et al., 2016), and shifting crop patterns may result in changes in employment throughout the agricultural sector (Greene, 2018; Villarejo, 1996). A Fourth Assessment study found that in the 2012-2016 drought, to access higher market prices and compensate for the higher cost of water, many farms switched to higher value crops, for which cultivation and harvesting could be largely automated— leaving agricultural workers with employment shortages beyond the drought (Greene, 2018). A report by the University of California found that in 2016, the drought resulted in a \$603 million loss to the economy and the loss of 4,700 jobs due to the impacts on agriculture (Medellín-Azuara et al., 2016).”⁴¹

Forest Impacts

A new paper published on October 18, 2018, estimates that “human-caused climate change caused over half of the documented increase in fuel aridity since the 1970s and

³⁸ California Statewide Summary at 27.

³⁹ *Id.*

⁴⁰ California Climate Indicators at S-5.

⁴¹ California Statewide Summary at 59.

doubled the cumulative forest fire area since 1984,” contributing an additional 4.2 million ha [hectares] of forest fire.⁴² As the paper notes, “[i]ncreased forest fire activity across the western United States in recent decades has contributed to widespread forest mortality, carbon emissions, periods of degraded air quality and substantial fire suppression expenditures.”⁴³

“A changing climate combined with anthropogenic factors has already contributed to more frequent and severe forest wildfires in the western U.S. as a whole (Abatzoglou & Williams, 2016; Mann et al., 2016; Westerling, 2016).”⁴⁴

“One Fourth Assessment model suggests large wildfires (greater than 25,000 acres) could become 50% more frequent by the end of century if emissions are not reduced. The model produces more years with extremely high areas burned, even compared to the historically destructive wildfires of 2017 and 2018.”⁴⁵

“By the end of the century, California could experience wildfires that burn up to a maximum of 178% more acres per year than current averages.”⁴⁶ Increased wildfire smoke will also lead to more respiratory illness.⁴⁷

In addition, the changes in climate make trees more vulnerable to pest infestations.

“Moisture stress in conifer forests enhances tree vulnerability to insect infestation, particularly by bark beetles (Anderegg et al., 2015; Bentz et al., 2010; Berryman, 1976; Gaylord et al., 2013; Hart et al., 2014; Kolb et al., 2016; Raffa et al., 2008). Between 2010 and 2017, an estimated 129 million trees have died (Young et al., 2017). Bark beetle outbreaks may be promoted by warming for multiple reasons (Bentz et al., 2010). Warming may promote successful beetle overwintering (Weed et al., 2015) and may also promote earlier timing of adult emergence and flight in spring/early summer, which may enable beetles to increase the frequency at which they can mate, lay eggs, and emerge as adults (Bentz et al., 2016).”⁴⁸

Drought and Land Subsidence Impacts

“The recent 2012-2016 drought was exacerbated by unusual warmth (Williams, Seager, et al., 2015), and disproportionately low Sierra Nevada snowpack levels (Dettinger & Anderson, 2015). This drought has been described as a harbinger of projected dry spells in future decades, whose impacts will likely be worsened by increased heat (Mann & Gleick, 2015). A very wet winter in 2016-2017 followed this drought, a further indication

⁴² John T. Abatzoglou and A. Park Williams, Impact of Anthropogenic Climate Change on Wildfire Across the Western U.S. Forests, *Proceedings of the National Academy of Science*, vol. 113, no. 42 (Oct. 18, 2018), available at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5081637/pdf/pnas.201607171.pdf>.

⁴³ *Id.*

⁴⁴ California Statewide Summary at 28.

⁴⁵ California Key Findings at 6.

⁴⁶ *Id.*

⁴⁷ *Id.* at 8.

⁴⁸ California Statewide Summary at 64.

of potential continued climate volatility in the future (Berg & Hall, 2015; Polade, et al., 2017; Swain et al., 2018).”⁴⁹

“Warming air temperatures throughout the 21st century will increase moisture loss from soils, which will lead to drier seasonal conditions even if precipitation increases (Thorne et al., 2015). Warming air temperatures also amplify dryness caused by decreases in precipitation (Ault et al., 2016; Cayan et al., 2010; Diffenbaugh et al., 2015). These changes affect both seasonal dryness and drought events. Climate projections from the previous and present generation of GCMs (e.g. Pierce et al., 2014; Swain et al., 2018) show that seasonal summer dryness in California may become prolonged due to earlier spring soil drying that lasts longer into the fall and winter rainy season. The extreme warmth during the drought years of 2014 and 2015 intensified some aspects of the 2012-2016 drought (Griffin & Anchukaitis, 2014; Mao et al., 2015; Stephenson et al., 2018; Williams, Seager, et al., 2015) and may be analogous for future drought events (Diffenbaugh et al., 2015; Mann & Gleick, 2015; Williams, Seager, et al., 2015).”⁵⁰

In addition, a “secondary, but large, effect of droughts is the increased extraction of groundwater from aquifers in the Central Valley, primarily for agricultural uses. The pumping can lead to subsidence of ground levels, which around the San Joaquin-Sacramento Delta has been measured at over three-quarters of an inch per year.”⁵¹

“This subsidence compounds the risk that sea-level rise and storms could cause overtopping or failure of the levees, exposing natural gas pipelines and other infrastructure to damage or structural failure. At this rate of subsidence, the levees may fail to meet the federal levee height standard (1.5 ft. freeboard above 100-year flood level) between 2050-2080, depending on the rate of sea-level rise.”⁵²

Sea-Level Rise, Coastal Erosion and Infrastructure Impacts

“Along the California coast, sea levels have generally risen. Since 1900, mean sea level has increased by about 180 millimeters (7 inches) at San Francisco and by about 150 millimeters (6 inches) since 1924 at La Jolla. In contrast, sea level at Crescent City has declined by about 70 millimeters (3 inches) since 1933 due to an uplift of the land surface from the movement of the Earth’s plates. Sea level rise threatens existing or planned infrastructure, development, and ecosystems along California’s coast.”⁵³

“If emissions continue at current rates, Fourth Assessment model results indicate that total sea-level rise by 2100 is expected to be 54 inches, almost twice the rise that would occur if greenhouse gas emissions are lowered to reduce risk.”⁵⁴

⁴⁹ *Id.* at 13.

⁵⁰ *Id.* at 26.

⁵¹ *Id.* at 14.

⁵² California Statewide Summary at 12.

⁵³ California Climate Indicators at S-7.

⁵⁴ California Key Findings, at 6.

“31 to 67% of Southern California beaches may completely erode by 2100 without large-scale human interventions.”⁵⁵

“Flooding from sea-level rise and coastal wave events leads to bluff, cliff, and beach erosion, which could affect large geographic areas (hundreds of kilometers). In research conducted for the Fourth Assessment, Erikson et al. (2018) found that if a 100-year storm occurs under a future with 2m (6.6 feet) of SLR, resultant flooding in Southern California could affect 250,000 people and lead to damages of \$50 billion worth of property and \$39 billion worth of buildings.”⁵⁶

In addition, airports in major urban areas will be susceptible to major flooding from sea-level rise and storm surge by 2040-2080, and 370 miles of coastal highway will be susceptible to coastal flooding by 2100.⁵⁷

Ocean Acidity and Health Impacts

“Increasing evidence shows that climate change is degrading California’s coastal and marine environment. In recent years, several unusual events have occurred along the California coast and ocean, including a historic marine heat wave, record harmful algal bloom, fishery closures, and a significant loss of northern kelp forests.”⁵⁸

In addition:

“[o]cean acidification ... is predicted to occur especially rapidly along the West Coast (e.g., Gruber et al., 2012). Ocean acidification presents a clear threat to coastal communities through its significant impacts on commercial fisheries and farmed shellfish (Ekstrom et al., 2015) as well as to ocean ecosystems on a broader scale. Ocean acidification affects many shell-forming species, including oysters, mussels, abalone, crabs, and the microscopic plankton that form the base of the oceanic food chain (Kroeker et al., 2013; Kroeker et al., 2010). Significant changes in behavior and physiology of fish and invertebrates due to rising CO₂ and increased acidity have already been documented (e.g., Hamilton et al., 2017; Jellison et al., 2017; Kroeker et al., 2013; Munday et al., 2009). Species vulnerable to ocean acidification account for approximately half of total fisheries revenue on the West Coast (Marshall et al., 2017).”⁵⁹

ILLINOIS

Climate change is affecting Illinois in a number of ways—both by fundamentally altering the state’s environment in ways never seen before and by intensifying well-recognized weather hazards. The fundamental changes can be seen in Illinois’ farming industry and in the state’s greatest environmental asset, Lake Michigan.

⁵⁵ *Id.* at 15.

⁵⁶ California Statewide Summary at 31.

⁵⁷ *Id.* at 54-55.

⁵⁸ *Id.* at 12.

⁵⁹ *Id.* at 66-67.

The farming sector is particularly vulnerable to extreme precipitation caused by climate change. 2012 was Illinois' third driest summer on record. The very next year, heavy rainfall caused flooding in parts of the state that, together with the wettest January-to-June period ever recorded in Illinois, forced farmers to delay planting and lose revenue.⁶⁰ Heat waves during the crop pollination season may reduce future yield: hotter weather and altered rain patterns could cause 15% loss in the next 5 to 25 years and up to a 73% average loss by the end of the next century.⁶¹ Milder winters will lead to more weeds, insects, and diseases surviving throughout winter, also hurting yield and quality.⁶²

Climate disruption also contributes to whipsawing water levels on Lake Michigan. In January 2013, the lake fell to an all-time low water level. In 2015, it climbed to its highest level since 1998, the second-largest recorded gain over a 24-month span.⁶³ Rapidly swinging water levels hurt the commercial shipping industry, recreational boaters, wildlife, and beach-goers. For example, for every inch the lake loses, a freighter must forgo 270 tons of cargo. High water erodes beaches and damages property.⁶⁴

Climate change has already turned up the volume on well-recognized catastrophic extreme weather events, causing stronger storms, increased precipitation, and higher average temperatures. In recent years, the state has been struck by deadly tornadoes in November 2013 and the 2014 polar vortex.⁶⁵

Illinois also suffers from frequent flooding, and climate change has and will cause the frequency and strength of these floods to increase. For instance, flooding caused by increased precipitation causes dramatic damage to the lives and property of Illinois residents; this toll will increase as climate change intensifies. For example, in 2009, a freight train carrying ethanol derailed in Cherry Valley, Illinois due to washout of train tracks following heavy rains.⁶⁶ Fourteen of the tanker cars carrying ethanol caught fire, killing a woman in her car waiting for

⁶⁰ University of Illinois–Institute of Government & Public Affairs, *Preparing for Climate Change in Illinois: An Overview of Anticipated Impacts*, <https://igpa.uillinois.edu/sites/igpa.uillinois.edu/files/reports/Preparing-for-Climate-Change-in-Illinois.pdf> (last visited Oct. 11, 2018).

⁶¹ *Id.*

⁶² *Id.*

⁶³ Tony Briscoe, *Lake Michigan Water Levels Rising at Near Record Rate*, CHICAGO TRIBUNE (July 12, 2015), available at <http://www.chicagotribune.com/news/local/breaking/ct-lake-michigan-water-levels-met-20150710-story.html>.

⁶⁴ *Id.*

⁶⁵ National Weather Service, *Historic Tornado Outbreak of November 17, 2013*, <https://www.weather.gov/ilx/17nov13> (last visited Oct. 11, 2018); National Weather Service, *The Bitterly Cold Air of January 27-28, 2014*, <https://www.weather.gov/lot/2014jan28> (last visited Oct. 11, 2018).

⁶⁶ National Transportation Safety Board, *Derailment of CN Freight Train U70691-18 with Subsequent Hazardous Materials Release and Fire*, <https://www.nts.gov/investigations/AccidentReports/Pages/RAR1201.aspx> (last visited Oct. 11, 2018).

the train to pass. Seven other people were injured and about 600 nearby homes were evacuated.⁶⁷ A few days later, a 54-mile-long fish kill occurred on the Rock River when ethanol that was not consumed by the fire flowed downstream, killing over 70,000 fish.⁶⁸

CHERRY VALLEY TRAIN DERAILMENT



Image from Rockford Register Star

In another instance, a major flood struck Jo Daviess County in northwestern Illinois in 2011 after 15 inches of rain fell during a 12-hour time period. The flood waters caused extensive damage to roads and train tracks and at least one fatality.⁶⁹ Illinois has also struggled with urban flooding caused by heavy rains falling on impervious surfaces.⁷⁰

⁶⁷ CBC.ca, *CN Blamed for Fatal Train Derailment in Illinois*, <https://www.cbc.ca/news/canada/cn-blamed-for-fatal-train-derailment-in-illinois-1.1139430> (last visited Oct. 12, 2018).

⁶⁸ Illinois Attorney General, *Attorney General Madigan Reaches Settlement to Recover Costs of Rockford Train Derailment, Ethanol Leak*, http://www.illinoisattorneygeneral.gov/pressroom/2015_03/20150305.html (last visited Oct. 12, 2018).

⁶⁹ *Crews Find Body of Woman Swept Away by Flood in Galena*, ROCKFORD REGISTER STAR (July 30, 2011), available at www.rrstar.com/x555032097/Crews-find-body-of-woman-swept-away-by-flood-in-Galena

⁷⁰ NOAA National Centers for Environmental Information, *State Climate Summaries: Illinois*, <https://statesummaries.ncics.org/il> (last visited Oct. 11, 2018).

2011 JO DAVIESS COUNTY FLOOD



Images from Rockford Register Star

Furthermore, rising average temperatures injures Illinois residents. Hotter weather will inevitably harm public health and lead to heat-related deaths. For instance, over 700 Illinois residents died due to the historically intense heat wave in July 1995.⁷¹ Intensified drought conditions strengthen these impacts—the inverse of heavy precipitation.

Though catastrophes such as these have occurred from time to time throughout Illinois' history, climate change will cause them to happen more frequently and with more ferocity than ever before, at the cost of the lives and health of Illinois residents.

MARYLAND

With more than 3,000 miles of coastline, Maryland's coast is particularly vulnerable to rising sea levels and the more extreme weather events associated with climate change: shoreline erosion, coastal flooding, storm surges, inundation, and saltwater intrusion into groundwater supplies.

In 2007, the Maryland Commission on Climate Change (MCCC) was established by Executive Order 01.01.2007.07 and was charged with evaluating and recommending state goals to reduce Maryland's greenhouse gas emissions to 1990 levels by 2020 and to reduce those emissions to 80 percent of their 2006 levels by 2050. The MCCC was also tasked with developing a plan of action that addressed the causes and impacts of climate change and included firm benchmarks and timetables for policy implementation. As a result of the work of more than 100 stakeholders and subject matter experts, the MCCC produced a climate action plan. That

⁷¹ Jan C. Semenza, *et al.*, *Heat Related Deaths During the 1995 Heat Wave in Chicago*, THE NEW ENGLAND JOURNAL OF MEDICINE (July 11, 1996), *available at* <https://www.nejm.org/doi/full/10.1056/NEJM199607113350203>.

plan was the impetus for Maryland's Greenhouse Gas Emissions Reduction Act of 2009, an enhanced version of which became law in 2016.⁷²

As emphasized by the MCCC's Science and Technical Working Group, estimates show that "Maryland is projected to experience between 2.1 and 5.7 feet of sea level rise over the next century. In fact, sea level could be as much as 2.1 feet higher in 2050 along Maryland's shorelines than it was in 2000."⁷³

Sea level rise could inundate some facilities of the Port of Baltimore, placing one of the most important ports along the East Coast at risk. In 2016, for instance, the Port generated nearly \$3 billion in wages and salaries, supported over 13,000 direct jobs, and moved 31.8 million tons of international cargo.⁷⁴

The state's tourism sector is also likely to feel the impact of climate change.⁷⁵ In 2015, for instance, tourism resulted in \$2.3 billion in tax revenue, which directly supported more than 140,000 jobs with a payroll of \$5.7 billion.⁷⁶ Rising sea levels, flooding, and heightened storm surges will place further strain on Maryland's low-lying urban and coastal lands, making tourism less feasible and increasing the costs of maintaining bridges, roads, boardwalks, and other tourism infrastructure.⁷⁷ Beaches, moreover, "will move inland at a rate 50 to 100 times faster than the rate of sea level elevation" and "the cost of replenishing the coastline after a 20-inch rise in sea level would be between \$35 million and \$200 million."⁷⁸

Further, skiing and other snow sports "are at obvious risk from rising temperatures, with lower-elevation resorts facing progressively less reliable snowfalls and shorter seasons."⁷⁹ Wisp Mountain Park, for example, is a popular skiing destination in Western Maryland, and the only ski resort in the State. Even in late December of 2015, only one of the resort's 35 trails was open because of the difficulty keeping snow on the ground in above-freezing temperatures.⁸⁰

⁷² Maryland Commission on Climate Change, 2016 Annual Report 7, http://mde.maryland.gov/programs/Air/ClimateChange/MCCC/Documents/MCCC_2016_final.pdf ("MCCC 2016 Annual Report").

⁷³ Maryland Commission on Climate Change, 2015 Annual Report 13, <http://mde.maryland.gov/programs/Air/ClimateChange/MCCC/Publications/MCCC2015Report.pdf> ("MCCC 2015 Annual Report").

⁷⁴ Maryland Commission on Climate Change, 2017 Annual Report 12, http://www.mde.state.md.us/programs/Air/ClimateChange/MCCC/Documents/MCCC_2017_final.pdf ("MCCC 2017 Annual Report").

⁷⁵ Center for Climate and Energy Solutions, Cost of Inaction Supplement, September 2015, <https://www.c2es.org/document/climate-change-the-cost-of-inaction-for-marylands-economy/>.

⁷⁶ Maryland Office of Tourism Development, Fiscal Year 2016 Tourism Development Annual Report, 2016, available at: <http://industry.visitmaryland.org/research/annual-reports/annual-reports-archive/>.

⁷⁷ MCCC 2015 Annual Report 14, *supra*.

⁷⁸ MCCC 2017 Annual Report 16, *supra*.

⁷⁹ MCCC 2016 Annual Report 18-19, *supra*.

⁸⁰ MCCC 2017 Annual Report 15, *supra*.

Climate change may also adversely impact Maryland's agricultural industry, which employs some 350,000 people.⁸¹ In 2015, the market value of agricultural products produced in Maryland was \$2.2 billion, with net farm income exceeding \$500 million.⁸² By 2050, absent additional action, rising summer temperatures could result in nearly \$150 million in median annual losses for corn, soy, and wheat.⁸³ Increased flooding could adversely affect the stability, salinity, drainage, and nutrient balance of soil in low-lying areas, causing declines in crop production and making farming less viable. Rising seas could lead salt water to flow into aquifers used for irrigation. Livestock could suffer from higher temperatures, too, and would need more access to cooler areas. By causing soil erosion and nutrient runoff, moreover, increased rainfall could adversely affect water quality, including in the Chesapeake Bay.⁸⁴

Climate change will have significant effects on forests, which contribute some \$2.2 billion to the Maryland economy, as well as \$24 billion in ecological services.⁸⁵ Climate change will exacerbate species' existing stressors and alter their distribution, with some species likely to leave or decline and others likely to arrive or increase. Further, the services that forests provide—such as temperature regulation and water filtration—may be affected by climate change.⁸⁶

Climate change also threatens the Chesapeake Bay, the largest estuary in the United States. Development and pollution have made the Bay and its ecosystems more vulnerable to stressors, including those resulting from climate change. Already, the Bay has warmed by three degrees Fahrenheit. Further temperature increases could change the composition of commercial fisheries and deprive aquatic life of the oxygen needed to survive. Some species are likely to move north towards cooler waters and more suitable habitats. Other forms of aquatic life, including invasive pests and diseases, are likely to arrive or proliferate in the Bay's newly-warmed waters.⁸⁷

In terms of health impacts, Maryland is likely to experience increasing numbers of 90-degree days, markedly exacerbating heat-related illnesses and mortality, particularly among the elderly.⁸⁸ A two-week heat wave in 2012, for instance, led to 12 deaths in Maryland.⁸⁹ By mid-century, rising temperatures could cause 27 additional deaths each summer in Baltimore alone.⁹⁰

NEW JERSEY

New Jersey's coastal geomorphology – its sandy beaches, flat coastal plain with a gradually sloping shoreline, low-lying barrier islands, and gradual subsidence – makes the risks of sea level rise from global warming particularly severe in the state. New Jersey's nearly 1,800

⁸¹ *Id.* at 13.

⁸² *Id.* at 14.

⁸³ MCCC 2015 Annual Report 15, *supra*.

⁸⁴ *Id.*

⁸⁵ *Id.*

⁸⁶ *Id.* at 15-16.

⁸⁷ *Id.* at 16.

⁸⁸ MCCC 2017 Annual Report 9, 17, *supra*.

⁸⁹ MCCC 2016 Annual Report 18-19, *supra*.

⁹⁰ *Id.*

miles of tidally-flowed shoreline, its 239 coastal communities, and its 2 million coastal county residents, are especially vulnerable to flooding, inundation, and erosion from sea level rise and the effects of stronger, fiercer storms.⁹¹ New Jersey has been ranked as one of the most threatened states in terms of the value of coastal real estate at risk from sea level rise and chronic flooding in the coming decades.⁹² Rising sea levels also endanger water supplies as saltwater intrusion of New Jersey's coastal and lower Delaware River aquifers increases water salinity above drinking standards.⁹³

Sea levels in New Jersey are already rising by an average of 1.6 inches per decade, almost double the global rate.⁹⁴ USEPA has projected that the global warming will cause sea levels to rise an additional 18 inches to 4 feet in New Jersey by 2100.⁹⁵ Further sea level rise of even 12 inches could cause shorelines to recede by as much as 120 feet.⁹⁶ Barrier islands on the state's Atlantic Coast from Bay Head to Cape May could be broken up by new inlets or lost to erosion if sea level rises three feet by 2100.⁹⁷ And up to 3 percent of New Jersey's land area could be inundated by four-foot sea level rise,⁹⁸ which would affect countless homes, businesses, hospitals, schools, and critical infrastructure.

These effects of sea level rise are magnified during storm events, which increase the severity of coastal flooding and erosion. For example, in 2012, Superstorm Sandy wreaked havoc in the state when a storm surge reached 9-10 feet above normal in some coastal areas. The extensive damage the State experienced from severe winds and coastal flooding reached an estimated \$29.4 billion in repair, response and restoration costs.⁹⁹ Sandy also cost the state an estimated \$11.7 billion in lost gross domestic product, including \$950 million in tourism losses.¹⁰⁰ Sandy

⁹¹ Small-Lorenz, S., Shadel, B. and Glick, P., *Building Ecological Solutions to Coastal Community Hazards: A Guide for New Jersey Coastal Communities* (2017), at 10, available at <https://www.nj.gov/dep/oculup/docs/bescch-final.pdf> (last accessed October 17, 2018); Union of Concerned Scientists (UCS), *New Jersey: Confronting Climate Change in the U.S. Northeast* (2007), at 2, available at https://www.state.nj.us/dep/cleanair/hearings/pdf/09_confronting.pdf (last accessed October 21, 2018).

⁹² Union of Concerned Scientists, *Underwater: Rising Seas, Chronic Floods, and the Implications for US Coastal Real Estate* (June 2018), at 5-7, 10-11, available at <https://www.ucsusa.org/sites/default/files/attach/2018/06/underwater-analysis-full-report.pdf> (last accessed October 23, 2018).

⁹³ NJ Climate Adaptation Alliance, *A Summary of Climate Change Impacts and Preparedness Opportunities for the Water Resources Sector in New Jersey* (March 2014), at 5, available at <https://njadapt.rutgers.edu/docman-lister/resource-pdfs/98-njcaa-water/file> (last accessed October 21, 2018).

⁹⁴ NOAA National Centers for Environmental Information, *State Climate Summaries: New Jersey*, available at <https://statesummaries.ncics.org/nj> (last accessed October 15, 2018).

⁹⁵ USEPA, *What Climate Change Means for New Jersey*, EPA 430-F-16-032 (August 2016), available at <https://www.epa.gov/sites/production/files/2016-09/documents/climate-change-nj.pdf> (last accessed October 17, 2018).

⁹⁶ Small-Lorenz et al., *Building Ecological Solutions*, supra, n.1, at 16.

⁹⁷ USEPA, *What Climate Change Means for New Jersey*, supra, n.5, at 1.

⁹⁸ Small-Lorenz et al., *Building Ecological Solutions*, supra, n.1, at 12.

⁹⁹ NOAA, *New Jersey Climate Summary*, supra, n.4.

¹⁰⁰ NJ Climate Adaptation Alliance, *Summary of Climate Change Impacts and Preparedness Opportunities for the Coastal Communities* (April 2014), at 5, available at <https://njadapt.rutgers.edu/docman-lister/working-briefs/108-njcaa-coastal-communities/file> (last accessed October 21, 2018).

had a catastrophic effect on regional electric and wastewater infrastructure: 73% of the state's electric customers experienced outages¹⁰¹ and the state's largest treatment plant was inundated and dumped 240 million gallons of sewage into the Newark Bay.¹⁰²

Sea level rise and coastal flooding also threaten to obliterate New Jersey's extensive coastal wetlands. Its tidal marshes are one of the state's defining features, valuable as a buffer for back-bay communities against erosion and tidal flooding, and as wildlife habitat. The state's coastal wetlands are an important stopover point for about 1.5 million migratory birds, including rare and endangered species like the red knot, and the Delaware Bay's tidal shores are the breeding grounds for the world's largest population of horseshoe crabs.¹⁰³

With more frequent and intense storms and accelerated sea level rise, tidal flats and marshes could become open water, jeopardizing species that entirely depend on this ecosystem to feed and nest. In Barnegat Bay and Little Egg Harbor, the rising sea is already eroding and submerging small marsh islands, which are important nesting areas for many seabirds. USEPA found that the salt marshes all along the Atlantic Coast between Cape May and the Meadowlands could be entirely displaced by sea level rise of three feet. Coastal wetlands along Delaware Bay in Cumberland County are more vulnerable still and could be lost if the sea rises by only two feet.¹⁰⁴

NEW MEXICO

The Southwest and New Mexico are experiencing the effects of climate change at a rate much faster than the majority of U.S. states. Warming trends in the southwestern U.S. have exceeded global averages by nearly 50 percent since the 1970s, and average temperatures in New Mexico have been increasing 50 percent faster than the global average over the past century.¹⁰⁵ Temperatures in the Upper Rio Grande River basin are increasing at a rate of roughly 0.7° F per decade, contributing to an average warming of 2.7° F since 1970.¹⁰⁶ Mountains have shown a higher rate of temperature rise when compared to lower elevations.¹⁰⁷ Both minimum and

¹⁰¹ NJ Climate Adaptation Alliance, *Summary of Climate Change Impacts and Preparedness Opportunities for Telecommunications and Energy Utilities* (March 2014), at 5-6, available at <https://njadapt.rutgers.edu/docman-lister/resource-pdfs/97-njcaa-utilities/file> (last accessed October 21, 2018).

¹⁰² NJ Climate Adaptation Alliance, *Summary of Climate Change Impacts and Preparedness Opportunities for the Water Resources Sector* (March 2014), at 5, available at <https://njadapt.rutgers.edu/docman-lister/resource-pdfs/98-njcaa-water/file> (last accessed October 21, 2018).

¹⁰³ NJ Climate Adaptation Alliance, *Summary of Climate Change Impacts and Preparedness Opportunities Affecting Natural Resources* (March 2014), at 1, available at <https://njadapt.rutgers.edu/docman-lister/working-briefs/106-njcaa-natural-resources/file> <https://njadapt.rutgers.edu/docman-lister/resource-pdfs/97-njcaa-utilities/file> (last accessed October 21, 2018).

¹⁰⁴ USEPA, *What Climate Change Means for New Jersey*, supra, n.5, at 2.

¹⁰⁵ Nature Conservancy, *Implications of Recent Climate Change*, at iii; Robert Repetto, *New Mexico's Rising Economic Risks from Climate Change*, DEMOS, at 1 (2012).

¹⁰⁶ Jason Funk et al., *Confronting Climate Change in New Mexico* at 6-7, 9 (Union of Concerned Scientists, April 2016); www.ucsusa.org/NewMexicoClimateChange (last visited Oct. 18, 2018).

¹⁰⁷ Dagmar Llewellyn & Seshu Vaddey, *West-Wide Climate Risk Assessment: Upper Rio Grande Impact Assessment*, at 1, 37-38, 117 (U.S. Department of Interior, Bureau of Reclamation, Dec.

maximum monthly temperatures also show rising trends. The number of very hot days and nights -- defined as temperatures above the warmest 10 percent of days on record -- has increased since 1950. Heat waves lasting longer than four days have also significantly increased since 1960.¹⁰⁸ These occurrences do not only affect a specific part of the state; over 95 percent of New Mexico has experienced mean temperature increases.¹⁰⁹

Key findings from the Third U.S. National Climate Assessment (Assessment) for the Southwest include:

- Snowpack and streamflow amounts are projected to decline in parts of the Southwest, decreasing surface water supply reliability for cities, agriculture, and ecosystems.¹¹⁰ (This is a critical issue for New Mexico because the state's social, economic and environmental systems are already water-scarce and thus vulnerable to the supply disruptions which are likely to accompany future climate changes.¹¹¹).
- Increased warming, drought, and insect outbreaks caused by or linked to climate change have increased the frequency of catastrophic wildfires impacting people and ecosystems in the Southwest. Fire models project more wildfire and increased risks to communities across extensive areas.¹¹²
- The Southwest's 182 federally recognized tribes and communities share particularly high vulnerabilities to climate changes such as high temperatures, drought, forest fires, and severe storms. Tribes may face loss of traditional foods, medicines, and water supplies due to declining snowpack, increasing temperatures, increasing drought, forest fires, and subsequent flooding. Historic land settlements and high rates of poverty – more than double that of the general United States population – constrain tribes' abilities to respond effectively to climate challenges.¹¹³

2013); <https://www.usbr.gov/watersmart/baseline/docs/urg/URGIAMainReport.pdf> (last visited Oct. 19, 2018).

¹⁰⁸ Repetto, Robert, *New Mexico's Rising Economic Risks from Climate Change*, at 1, available at <https://www.demos.org/sites/default/files/publications/UpdatedNMFFullReport.pdf> (last visited Oct. 24, 2018); see also Nature Conservancy, *Implications of Recent Climate Change*, *supra*, at 4.

¹⁰⁹ Nature Conservancy, *Implications of Recent Climate Change*, *supra*, at iii.

¹¹⁰ U.S. Global Change Research Program, *2014 National Climate Assessment*, at 463 (2014), available at <https://nca2014.globalchange.gov/report/regions/southwest%0D> (last visited Jan. 8, 2018).

¹¹¹ Brian H. Hurd & Julie Coonrod, *Climate Change and Its Implications for New Mexico's Water Resources and Economic Opportunities*, NM State University, Technical Report 45, at 1, 24 (2008); <https://aces.nmsu.edu/pubs/research/economics/TR45.pdf> (last visited Oct. 18, 2018).

¹¹² *Id.*

¹¹³ The White House, Office of the Press Secretary, *FACT SHEET: What Climate Change Means for New Mexico and the Southwest*, at 3 (2014), available at https://obamawhitehouse.archives.gov/sites/default/files/docs/state-reports/NEWMEXICO_NCA_2014.pdf (last visited Oct. 18, 2018); see also *Confronting Climate Change in New Mexico*, *supra*, at 6-7, 9.

- The Southwest produces more than half of the nation's high-value specialty crops, which are irrigation-dependent and particularly vulnerable to extremes of moisture, cold, and heat. Reduced yields from increasing temperatures and increasing competition for scarce water supplies will displace jobs in some rural communities.¹¹⁴
- Increased frost-free season length, especially in already hot and moisture-stressed regions like the Southwest, is projected to lead to further heat stress on plants and increased water demands for crops. Higher temperatures and more frost-free days during winter can lead to early bud burst or bloom of some perennial plants, resulting in frost damage when cold conditions occur in late spring; in addition, with higher winter temperatures, some agricultural pests can persist year-round, and new pests and diseases may become established.¹¹⁵

Key findings from the Assessment for New Mexico include:

- Streamflow totals in the Rio Grande and other rivers in the Southwest were 5 percent to 37 percent lower between 2001 and 2010 than average flows during the 20th century. Projections of further reduction of late-winter and spring snowpack and subsequent reductions in runoff and soil moisture pose increased risks to water supplies needed to maintain cities, agriculture, and ecosystems.¹¹⁶
- Drought and increased temperatures due to climate change have caused extensive tree death across the Southwest. Winter warming due to climate change has exacerbated bark beetle outbreaks by allowing more beetles, which normally die in cold weather, to survive and reproduce.¹¹⁷ Wildfire and bark beetles killed trees across one fifth of New Mexico and Arizona forests from 1984 to 2008.¹¹⁸ Climate changes caused extensive piñon pine mortality in New Mexico between 1989 and 2003.¹¹⁹
- Exposure to excessive heat can aggravate existing human health conditions, such as respiratory and heart disease. Increased temperatures can reduce air quality because atmospheric chemical reactions proceed faster in warmer conditions. As a result, heat waves are often accompanied by increased ground level ozone, which can cause respiratory distress. Increased temperatures and longer warm seasons will lead to shifts in the distribution of disease-transmitting mosquitoes.¹²⁰

¹¹⁴ U.S. Global Change Research Program, *2014 National Climate Assessment*, *supra*, at 463.

¹¹⁵ *Id.*

¹¹⁶ *Id.*

¹¹⁷ *Id.*

¹¹⁸ *Id.* at 468.

¹¹⁹ *Id.* at 484.

¹²⁰ *What Climate Change Means for New Mexico and the Southwest*, *supra*, at 2-3.

Additionally, a recent study led by Los Alamos National Laboratories found that greenhouse gas-driven warming may lead to the death of 72 percent of the Southwest's evergreen forests by 2050, and nearly 100 percent mortality of these forests by 2100.¹²¹

If action is not taken to reduce greenhouse gas emissions, climate models project substantial changes in New Mexico's climate over the next 50 to 100 years. Barring reduction efforts, projected climate changes by mid- to late 21st century include: air temperatures warming by 6-12 degrees Fahrenheit on average, but more so in winter, at night, and at high elevations; more episodes of extreme heat, fewer episodes of extreme cold; more intense storm events and flash floods; and winter precipitation falling more often as rain and less often as snow.¹²² Severe and sustained drought will stress water sources, already over-utilized in many areas, forcing increasing water-allocation competition among farmers, energy producers, urban dwellers, and ecosystems.¹²³

OREGON

Oregon is already experiencing adverse impacts of climate change and these impacts are expected to become more pronounced in the future, significantly affecting Oregon's economy and environment:

Loss of Snowpack and Drought

The seasonal flow cycles of rivers and streams are changing due to warmer winters and decreased mountain snowpack accumulation, as more precipitation falls as rain, not snow.¹²⁴ The Third Oregon Climate Assessment Report¹²⁵ explained that events in 2015 demonstrated the kind of impacts this has already had, and will have in the future:

In 2015, Oregon was the warmest it has ever been since record keeping began in 1895 (NOAA, 2017). Precipitation during the winter of that year was near normal, but winter temperatures that were 5–6°F above average caused the precipitation that did fall to fall as rain instead of snow, reducing mountain snowpack accumulation (Mote et al., 2016). This resulted in record low snowpack across the state, earning official drought declarations for 25 of Oregon's 36 counties. Drought impacts across Oregon were widespread and diverse:

¹²¹ Chris Mooney, *Scientists say climate change could cause a 'massive' tree die-off in the U.S. Southwest*, WASH. POST, Dec. 21, 2015, available at <https://www.washingtonpost.com/news/energy-environment/wp/2015/12/21/scientists-say-climate-change-could-cause-a-massive-tree-die-off-in-the-southwest/> (last visited Oct. 18, 2018).

¹²² *Confronting Climate Change in New Mexico*, *supra*, at 3.

¹²³ *What Climate Change Means for New Mexico and the Southwest*, *supra*, at 1-2.

¹²⁴ P. Zion Klos et al., *Extent of the Rain-Snow Transition Zone in the Western U.S. Under Historic and Projected Climate*, 41 Geophysical Res. Letters 4560, 4560–68 (2014).

¹²⁵ *The Third Oregon Climate Assessment Report*, Oregon Climate Change Research Institute, January 2017.

Farmers in eastern Oregon’s Treasure Valley received a third of their normal irrigation water because the Owyhee reservoir received inadequate supply for the third year in a row (Stevenson, 2016) ...

People near the Upper Klamath Lake were warned not to touch the water as algal blooms that thrived in the low flows and warm waters produced extremely high toxin levels (Marris, 2015) ...

More than half of the spring spawning salmon in the Columbia River perished, likely due to a disease that thrived in the unusually warm waters (Fears, 2015) ...

The West Coast–wide drought developed alongside a naturally-driven large, persistent high-pressure ridge (Wise, 2016). However, anthropogenic warming exacerbated the drought, particularly in Oregon and Washington (Mote et al., 2016; Williams et al., 2015) ...

Oregon’s temperatures, precipitation, and snowpack in 2015 are illustrative of conditions that, according to climate model projections, may be considered “normal” by mid-century.¹²⁶

And there has been more bad news since 2015. In 2018, researcher John Abatzoglou reported that:

Drought impacts are being felt most notably in Oregon, which endured a period of substandard snowpack followed by unusually dry and warm conditions since May. The impacts cover the gamut from fire to farms to fish ...

Fishing restrictions have been enacted in the Umpqua River in western Oregon due to critically warm stream temperatures for steelhead and salmon. The combination of very low flows—including recent daily record low flows—due to subpar precipitation and warm temperatures have allowed water temperatures to warm faster than usual.¹²⁷

Sea Level Rise

Ocean sea levels will rise between four inches and four-and-a-half feet on the Oregon coast by the year 2100, and coastal residents, cities and towns along Oregon’s 300 miles of coastline and 1400 miles of tidal shoreline will be threatened by increased flooding

¹²⁶ *Id.* at 12-13, citing: P. W. Mote et al., *Perspectives on the causes of exceptionally low 2015 snowpack in the western United States*, (2016).; D. Fears, *As salmon vanish in the dry Pacific Northwest, so does Native heritage*, Washington Post (2015); J. Stevenson, *Documenting the Drought*, The Climate CIRCulator (2016); E. Marris, *In the Dry West, Waiting for Congress*, The Klamath Tribes Tribal News and Events (2015); A.P. Williams et al., *Contribution of anthropogenic warming to California drought during 2012-14*, Geophysical Research Letter, 2015.

¹²⁷ Abatzoglou, “Drought Returns to the Pacific Northwest,” OCCRI Climate Circulator (August 2018).

and erosion as a result. Residential development, state highways, and municipal infrastructure are all at risk to such threats.¹²⁸

Ocean Acidification and Hypoxia

As a result of climate change, ocean waters are now more acidified, hypoxic (low oxygen), and warmer, and such impacts are projected to increase, with a particular detrimental impact on some marine organisms like oysters and other shellfish, which will threaten marine ecosystems, fisheries and seafood businesses that play a vital role in Oregon's economy and culture.¹²⁹ As the Third Oregon Climate Assessment Report observed, "[T]he West Coast has already reached a threshold and negative impacts are already evident, such as dissolved shells in pteropod populations ... and impaired oyster hatchery operations ..."¹³⁰

The Oregon Coordinating Council on Ocean Acidification and Hypoxia recently reported that "[n]ew research points to an ever-growing list of marine organisms that are now known to be vulnerable to the threats of ocean acidification and hypoxia (OAH). The list includes species such as Dungeness crabs, rockfishes and salmon that underpin livelihoods and connections to the sea for many Oregonians."¹³¹

In March of 2017, KVAL TV in Eugene, Oregon chronicled the experience of the Whiskey Creek Hatchery off Netarts Bay in Tillamook, Oregon. Manager Alan Barton said that "[w]e probably produce about a third of all oyster larvae on the West Coast." But in 2007 and 2008, hatchery output collapsed by 75%. Working with scientists from Oregon State University, Whiskey Creek identified ocean acidification as the problem. They developed a way to treat the water at the hatchery, which has been successful. But Barton does not believe that treatment is a long-term solution:

"The short term prospects are pretty good. But within the next couple of decades we're going to cross a line I don't think we're going to be able to come back from," he says. "A lot of people have the luxury of being skeptics about climate change and ocean acidification. But we don't have that choice. If we don't change the chemistry of the water going into our tanks, we'll be out of business. It's that simple for us."¹³²

¹²⁸ See W. Spencer Reeder et al., *Coasts: Complex Changes Affecting the Northwest's Diverse Shorelines*, in *Climate Change in the Northwest: Implications for Our Landscapes, Waters, and Communities* 67–109 (Meghan M. Dalton et al. eds., 2013); Ben Strauss et al., Climate Cent., *California, Oregon, Washington and the Surging Sea: A Vulnerability Assessment with Projections for Sea Level Rise and Coastal Flood Risk* 29 (2014).

¹²⁹ See Francis Chan et al., Cal. Ocean Sci. Tr., *The West Coast Ocean Acidification and Hypoxia Science Panel: Major Findings, Recommendations, and Actions* (2015); Julia A. Ekstrom et al., *Vulnerability and Adaptation of U.S. Shellfisheries to Ocean Acidification*, 5 *Nature Climate Change* 207, 207–14 (2015).

¹³⁰ *Third Oregon Climate Assessment Report*, *supra*, at 36.

¹³¹ Oregon Coordinating Council on Ocean Acidification and Hypoxia, 1st Biennial Report, at 8, September 15, 2018.

¹³² KVAL-TV, 'One morning we came in and everything was dead': Climate Change and Oregon oysters, March 1, 2017.

Forests, Pests and Fires

Oregon is largely defined by its iconic forests, which climate change threatens in myriad ways, as the Third Oregon Climate Assessment Report detailed:

Future warming and changes in precipitation may considerably alter the spatial distribution of suitable climate for many important tree species and vegetation types in Oregon by the end of the 21st century. Changing climatic suitability and forest disturbances from wildfires, insects, diseases, and drought will drive changes to the forest landscape in the future. Conifer forests west of the Cascade Range may shift to mixed forests and subalpine forests would likely contract. Human-caused increases in greenhouse gases are partially responsible for recent increases in wildfire activity. Mountain pine beetle, western spruce budworm, and Swiss needle cast remain major disturbance agents in Oregon's forests and are expected to expand under climate change. More frequent drought conditions projected for the future will likely increase forest susceptibility to other disturbance agents such as wildfires and insect outbreaks.

Future warming and changes in precipitation may considerably alter the spatial distribution of suitable climate for many important tree species and vegetation types in Oregon by the end of the 21st century (Littell et al., 2013). Furthermore, the cumulative effects of changes due to wildfire, insect infestation, tree diseases, and the interactions between them, will likely dominate changes in forest landscapes over the coming decades (Littell et al., 2013). ..

Over the last several decades, warmer and drier conditions during the summer months have contributed to an increase in fuel aridity and enabled more frequent large fires, an increase in the total area burned, and a longer fire season across the western United States, particularly in forested ecosystems (Dennison et al., 2014; Jolly et al., 2015; Westerling, 2016; Williams and Abatzoglou, 2016). The lengthening of the fire season is largely due to declining mountain snowpack and earlier spring snowmelt (Westerling, 2016). In the Pacific Northwest, the fire season length increased over each of the last four decades, from 23 days in the 1970s, to 43 days in the 1980s, 84 days in the 1990s, and 116 days in the 2000s (Westerling, 2016). Recent wildfire activity in forested ecosystems is partially attributed to human-caused climate change: during the period 1984–2015, about half of the observed increase in fuel aridity and 4.2 million hectares (or more than 16,000 square miles) of burned area in the western United States were due to human-caused climate change (Abatzoglou and Williams, 2016).¹³³

¹³³ *The Third Oregon Climate Assessment Report*, citing J.T. Abatzoglou and A.P. Williams, *Impact of anthropogenic climate change on wildfire across western US forests.*, Proceedings of the National Academy of Sciences 113 (2016); P.E. Dennison et al, *Large wildfire trends in the western United States, 1984–2011*, Geophysical Research Letters 41 (2014); J.S.D. Littell et al., *Forest ecosystems: Vegetation, disturbance, and economics*, Chapter 5. In: Dalton, Mot, and Snover(eds) *Climate Change in the Northwest: Implications for Our Landscapes, Waters, and Communities*, Island Press, Washington, DC (2013); A. L. Westerling, *Increasing western US forest wildfire activity: sensitivity to changes in the timing of spring*. Phil. Trans. R. Soc. B 371 (2016).

Health Effects

An increase in forest fire activity is one of the various ways in which climate change threatens human health. As the Third Oregon Climate Assessment noted, “Climate change threatens the health of Oregonians. More frequent heat waves are expected to increase heat-related illnesses and death. More frequent wildfires and poor air quality are expected to increase respiratory illnesses.”¹³⁴ For example:

Climate change is expected to worsen outdoor air quality. Warmer temperatures may increase ground level ozone pollution, more wildfires may increase smoke and particulate matter, and longer, more potent pollen seasons may increase aeroallergens (Fann et al., 2016). Such poor air quality is expected to exacerbate allergy and asthma conditions and increase respiratory and cardiovascular illnesses and death (Fann et al., 2016).¹³⁵

Oregon has already experienced a dramatic increase in “unhealthy air days” due to forest fires. The Medford metro region experienced 20 air quality alert days due to fire from 1985 through 2001, 19 of those in one year. From 2002 through 2012, Medford had 22 such days. But since 2013, Medford has had 74 such days, including 20 in 2017 and 35 in 2018.¹³⁶ Portland, meanwhile, had a total of two such days from 1985 through 2014 – but 13 such days from 2015 through 2018.¹³⁷

During the 2017 Eagle Creek fire, the Oregon Health Authority (OHA) reported a 29% increase in emergency room visits for respiratory symptoms in the Portland metro region.¹³⁸

In its 2014 Oregon Climate and Health Profile Report, OHA elaborated on the health effects of wildfire smoke:

Particulate matter (PM) in smoke from wildfires is associated with cancer, cardiopulmonary disease and respiratory illness ... As a result of projected increases in wildfire, Spracklen et al. (2009) anticipate an increase in aerosol organic carbon of up to 40% and an increase in elemental carbon in the western U.S. of up to 20% in 2046–2055 compared to 1996–2005 ... PM associated with wildfires in California has been shown to

¹³⁴ *Third Oregon Climate Assessment Report*, *supra*, at 74.

¹³⁵ *Id.*, citing N. Fann et al., Ch. 3: *Air Quality Impacts. The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment. US Global Change Research Program*, Washington, DC (2016).

¹³⁶ In addition to the impact on human health, fires in the Medford area have punished a beloved Oregon institution, the Oregon Shakespeare Festival in Ashland. In 2018 alone, the Festival had to cancel – or move indoors, to smaller venues – 20 performances, costing the Festival money and ruining many theater-goers’ plans. *Wildfire Smoke Disrupts Oregon Shakespeare Festival*, New York Times, August 24, 2018.

¹³⁷ Oregon DEQ, *Forest Fire Smoke Impact on Air Quality Health Trends in Bend, Klamath Falls, Medford, and Portland (1985 to 2018)*, DEQ18-NWR-0066-TR (October 2018). It is worth noting that although air quality alerts are often limited to especially vulnerable populations – “unhealthy for sensitive groups” – Medford in 2017-18 has experienced 38 days in which the air was unhealthy for all populations, including five “very unhealthy” days and one “hazardous” day.

¹³⁸ Statewide Fire Activation Surveillance Report (090517-090617), Oregon Health Authority.

be more toxic to the lungs than normal ambient PM ... PM exposure from wildfire smoke is a risk beyond the immediate area of the fire, since high winds can carry the PM long distances ... Increases in smoke are associated with hospital admissions for respiratory complaints, and long-term exposure worsens existing cardiopulmonary disease ... bronchitis and pneumonia.¹³⁹

Impact on American Indian Tribes

As the Legislative Summary of the Third Oregon Climate Assessment Report observed:

Changes in terrestrial and aquatic ecosystems will affect resources and habitats that are important for the sovereignty, culture, economy, and community health of many American Indian tribes. Tribes that depend upon these ecosystems, both on and off reservation, are among the first to experience the impacts of climate change. Of particular concern are changes in the availability and timing of traditional foods such as salmon, shellfish, and berries, and other plant and animal species important to tribes' traditional way of life.¹⁴⁰

The threat that climate change poses to salmon populations is a particular source of concern for the tribes:

A 2015 study of Columbia River Basin tribes, including the Confederated Tribes of Warm Springs (CTWS) and the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), found that the primary concerns regarding climate change impacts included the quantity and quality of water resources, snowpack, water temperatures for spawning conditions, and fishing rights (Sampson, 2015). Pacific salmon have great cultural, subsistence, and commercial value to tribes in the Pacific Northwest, and are central to tribal cultural identity, longhouse religious services, sense of place, livelihood, and the transfer of traditional values to the next generation (Dittmer, 2013). During the last 150 years, culturally important salmon populations have declined (Dittmer, 2013). Continuation of past trends of earlier spring peak, more extreme high flows and more frequent low flows in the low elevation basins of northeast Oregon, home to the CTWS

¹³⁹ Oregon Climate and Health Profile Report at 39 (Oregon Health Authority, Public Health Division, 2014), citing C.A. Pope et al., *Cardiovascular mortality and long-term exposure to particulate air pollution: Epidemiological evidence of general pathophysiological pathways of disease*, *Circulation*. 2004;109:71–7.; C.A. Pope and D.Q. Dockery, Dockery, *Health effects of fine particulate air pollution: lines that connect.*, *Journal of the Air & Waste Management Association* (1995). 2006;56:709–42; World Health Organization. *Review of Evidence on Health Aspects of Air Pollution—REVIHAAP Project* (2013.) J.L. Mauderly and J.C. Chow, *Health effects of organic aerosols. Inhalation toxicology*. 2008;20:257–88; T.C. Wegesser and K.E. Pinkerton KE, J.A. Last, *California wildfires of 2008: coarse and fine particulate matter toxicity*, *Environmental Health Perspectives*. 2009;117:893–7.; M. Ginsberg et al. *Monitoring Health Effects of Wildfires Using the BioSense System—San Diego County, California*, October 2007. *Morbidity and Mortality Weekly Report*. 2008;57(27):741–4; R.J. Delfino et al., *The relationship of respiratory and cardiovascular hospital admissions to the southern California wildfires of 2003*, *Occupational and Environmental Medicine*. 2009;66:189–97.

¹⁴⁰ *The Third Oregon Climate Assessment Report, supra*, (Legislative Summary).

and CTUIR, may force earlier migration of juvenile salmon, challenge returning adults in low flow conditions, and increase scour risk for emerging young salmon (Dittmer, 2013).¹⁴¹

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The threat that climate change poses to forests is likewise a major concern for tribes:

Changes in forest ecosystems and disturbances will affect resources and habitats that are important for the cultural, medicinal, economic, and community health of tribes (Lynn et al., 2013). In Oregon, 62% of tribal reservation land is forested, and the US government has a trust responsibility toward such forests (Indian Forest Management Assessment Team, 2013). American Indian and Alaska Native tribes that depend on forest ecosystems, whether on or off reservations, are among the first to experience the impacts that climate change is having on forests, such as the expansion of invasive species, insects, diseases, and wildfires (Norton-Smith et al., 2016). Invasive species that displace native species can negatively affect tribal subsistence and ceremonial practices, although there is little knowledge about on how climate change will interact with invasive species (Norton-Smith et al., 2016). Increasing wildfire, insects, and diseases have jeopardized the economic and ecological sustainability of tribally managed forests and important tribal resources (Indian Forest Management Assessment Team, 2013; Norton-Smith et al., 2016). Collaborative adaptive forest management that integrates tribal traditional ecological knowledge can support socio-ecological resilience to climate change (Armatas et al., 2016).¹⁴²

PENNSYLVANIA

The Commonwealth of Pennsylvania faces two fundamental threats related to climate: (1) sea level rise and its impact on communities and cities in the Delaware River Basin, including the city of Philadelphia; and (2) more frequent extreme weather events, including large storms, periods of drought, heat waves, heavier snowfalls, and an increase in overall precipitation variability. Based on studies commissioned by the Pennsylvania Department of Environmental Protection, as part of its mandate under the Pennsylvania Climate Change Act, 71 P.S. §§ 1361.1 – 1361.8, Pennsylvania has undergone a long-term warming of more than 1°C over the past 110 years.¹⁴³ The models used in the 2015 Climate Impacts Assessment Update

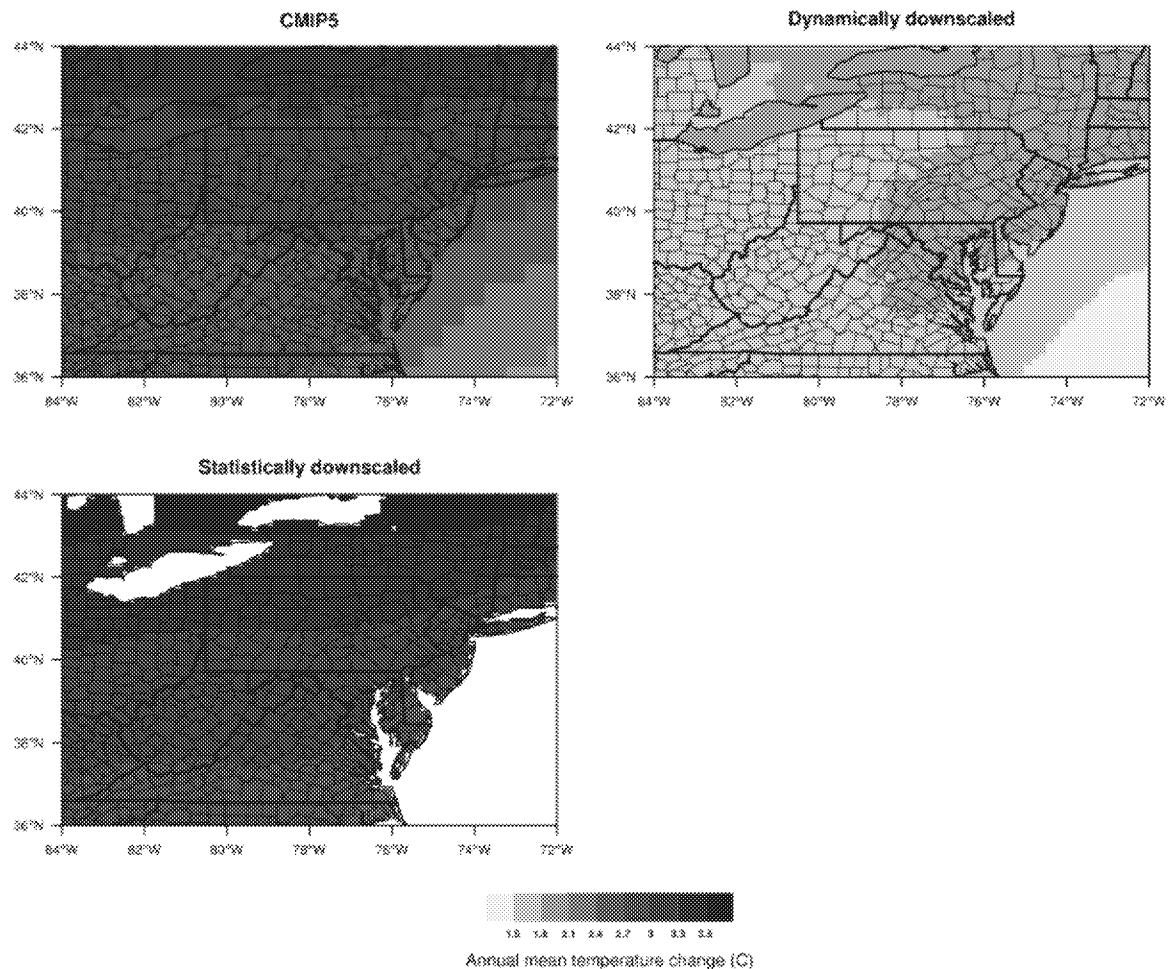
¹⁴¹ K. Dittmer, *Changing streamflow on Columbia basin tribal lands—climate change and salmon*, Climatic Change 120(3) (2013); D. Sampson, *Columbia River Basin Tribes Climate Change Capacity Assessment*, Institute for Tribal Government, Hatfield School of Government, Portland State University: Portland, OR (2015)

¹⁴² Citing C. Armatas et al., *Opportunities to utilize traditional phenological knowledge to support adaptive management of social-ecological systems vulnerable to changes in climate and fire regimes*, Ecology and Society 21 (2016); *Assessment of Indian Forests and Forest Management in the United States*, Indian Forest Management Assessment Team (2013) ; K. Lynn et al., *Northwest Tribes: Cultural Impacts and Adaptation Resources*: Chapter 8. In: M. M. Dalton et al., *Climate Change in the Northwest: Implications for Our Landscapes, Waters, and Communities*, Island Press: Washington, DC (2013); K. Norton-Smith et al., *Climate change and indigenous peoples: a synthesis of current impacts and experiences* (2016).

¹⁴³ See “Pennsylvania Climate Impacts Assessment Update,” May 2015, available at <http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-108470/2700-BK-DEP4494.pdf>. See

suggest this warming is a result of anthropogenic influence, and that this trend is accelerating. Projections in the 2015 Update show that by the middle of the 21st century, Pennsylvania will be about 3°C warmer than it was at the end of the 20th century.

Model mean temperature change



Modeling charts from the 2015 Update show that in both the CMIP5 and statistically downscaled CMIP5 datasets, mid-century temperatures in the Philadelphia region are projected to be similar to historical temperatures in the Richmond, VA area. Similarly, Pittsburgh’s temperatures are projected to resemble the historically observed temperatures in the Baltimore-

also “Pennsylvania Climate Impacts Assessment Update,” October 2013, available at <http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-97037/PA%20DEP%20Climate%20Impact%20Assessment%20Update.pdf>; “Pennsylvania Climate Assessment,” June 2009, available at <http://www.elibrary.dep.state.pa.us/dsweb/Get/Document-75375/7000-BK-DEP4252.pdf>.

Washington area. The mean warming across the state simulated by these models is generally 3.0-3.5 °C (5.4-6.3°F). The CMIP5 model mean change is 3.0-3.3 °C (5.4-6.0 °F) across nearly the entire state. The statistically downscaled CMIP5 model mean change is 3.3-3.5 °C (5.9-6.3°F) in the northern half of the state and 3.0-3.3 °C (5.4-6.0°F) in the southern half. Finally, the dynamically downscaled dataset model mean change is only 1.5-1.8 °C (2.7-3.2°F) across the western half of the state and 1.8-2.1 °C (3.2-3.8 °F) across the eastern half. The reduced warming is likely at least partially because these models rely on a different emissions scenario, in which the buildup of greenhouse gases in the atmosphere occurs at a slower rate than in the than in the scenarios that the CMIP5 models use.

The 2015 Climate Impacts Assessment Update also finds that this warming trend will threaten Pennsylvania in other ways:

- Pennsylvania agriculture will have to adapt to by greater extremes in temperature and precipitation.¹⁴⁴ Pennsylvania dairy production is likely to be negatively affected by climate change due to losses in milk yields caused by heat stress, additional energy and capital expenditures to mitigate heat stress, and lower levels of forage quality.
- Pennsylvania's forests will be subject to multiple stressors.¹⁴⁵ The warming climate will cause tree species inhabiting decreasingly suitable habitat to become stressed. Mortality rates are likely to increase and regeneration success is expected to decline for these tree species, resulting in declining importance of those species in the state.
- Suitable habitat for plant and wildlife species is expected to shift to higher latitudes and elevations.¹⁴⁶ This will reduce the amount of suitable habitat in Pennsylvania for species that are at the southern extent of their range in Pennsylvania or that are found primarily at high latitudes; the amount of habitat in the state that is suitable for species that are at the northern extent of their range in Pennsylvania will increase. The Canada lynx, which is already rare in Pennsylvania, will likely be extirpated from the state.
- The public health of Pennsylvanians is threatened because climate change will worsen air quality relative to what it would otherwise be, causing increased respiratory and cardiac illness.¹⁴⁷ The linkage between climate change and air quality is most strongly established for ground-level ozone creation during summer, but there is some evidence that higher temperatures and higher precipitation will result in increased allergen (pollen and mold) levels as well.
- West Nile disease is endemic in Pennsylvania.¹⁴⁸ It is currently most prevalent in Southeastern and Central parts of the state, and less prevalent in the Laurel Highlands and the Allegheny Plateau. However, climate change is expected to increase the prevalence of West Nile disease in the higher-elevation areas, due to higher temperatures. In addition

¹⁴⁴ 2015 Climate Impacts Assessment Update, *supra*, at 63.

¹⁴⁵ *Id.* at 114.

¹⁴⁶ *Id.*

¹⁴⁷ *Id.* at 321.

¹⁴⁸ *Id.* at 135.

to its range, the duration of the transmission season for West Nile disease is sensitive to climate. Warmer temperatures result in a longer transmission season, and therefore greater infection risk.

- Climate change will have a severe, negative impact on winter recreation in Pennsylvania.¹⁴⁹ Downhill ski and snowboard resorts are not expected to remain economically viable past mid-century. Snow cover to support cross country skiing and snowmobiling has been declining in Pennsylvania, and is expected to further decline by 20-60%, with greater percentage decreases in southeastern Pennsylvania, and smaller decreases in northern Pennsylvania.
- Climate change poses a threat to the fauna of the tidal freshwater portion of the Delaware estuary in Pennsylvania.¹⁵⁰ One reason is that increased water temperatures with climate change decrease the solubility of oxygen in water and will increase respiration rates, both of which will result in declines in dissolved oxygen concentration. Thus, climate change will worsen the currently substandard water quality in the tidal freshwater region of the Delaware Estuary.
- The freshwater tidal wetlands along Pennsylvania's southeastern coast are a rare, diverse, and ecologically important resource.¹⁵¹ Climate change poses a threat to these wetlands because of salinity intrusion and sea-level rise. Sea-level rise, however, has the potential to drown wetlands if their accretion rates are less than rates of sea-level rise.

RHODE ISLAND

Climate change is adversely impacting Rhode Island in many diverse ways, including warming air temperatures, warming ocean temperatures, rising sea level, increased acidity of ocean waters, increased rainfall amounts, and increased intensity of rainfall events.

Rhode Island has experienced a significant trend over the past 80 years toward a warmer and wetter climate. Trends are evident in annual temperatures, annual precipitation, and the frequency of intense rainfall events. Temperatures have been steadily climbing in the Ocean State since the early 1930s. The average annual temperature for the state is currently increasing at a rate of 1 degree Fahrenheit every 33 years. The frequency of days with high temperatures at or above 90 degrees has increased while the frequency of days with minimum temperatures at or below freezing has decreased.¹⁵²

¹⁴⁹ *Id.* at 141.

¹⁵⁰ *Id.* at 152.

¹⁵¹ *Id.*

¹⁵² *Overview of a Changing Climate in Rhode Island*, David Vallee (Hydrologist-in-Charge, National Weather Service Northeast River Forecast Center, NOAA) and Lenny Giuliano (Air Quality Specialist, Rhode Island Department of Environmental Management, State Climatologist, State of Rhode Island), August 2014 at 2-3, available at http://research3.fit.edu/sealevelriselibrary/documents/doc_mgr/444/Valee%20&%20Giuliano.%202014.%20CC%20in%20Rhode%20Island%20Overview.pdf.

There has also been a pronounced increase in precipitation from 1930 to 2013. Increased precipitation has occurred as a result of large, slow moving storm systems, multiple events in the span of a few weeks (such as the 2010 spring floods), as well as an increase in the frequency of intense rain events. The average annual precipitation for Rhode Island is increasing at a rate of more than 1 inch every 10 years. The frequency of days having one inch of rainfall has nearly doubled. Intense rainfall events (heaviest 1 percent of all daily events from 1901 to 2012 in New England) have increased 71 percent since 1958. The increased amounts of precipitation since 1970 has resulted in a much wetter state in terms of soil moisture and the ground's ability to absorb rainfall.¹⁵³

In addition, the water in Narragansett Bay is getting warmer. Over the past 50 years, the surface temperature of the Bay has increased 1.4° to 1.6° C (2.5° to 2.9° F). Winter water temperatures in the Bay have increased even more, from 1.6° to 2.0° C (2.9° to 3.6° F). Ocean temperatures are increasing world-wide, but temperature increases in the northwestern Atlantic Ocean are expected to be 2-3 times larger than the global average.¹⁵⁴ Warmer water temperatures in Narragansett Bay are causing many changes in ecosystem dynamics, fish, invertebrates, and plankton. Cold-water iconic fishery species (cod, winter flounder, hake, lobster) are moving north out of RI waters and warm-water southern species are becoming more prevalent (scup, butterfish, squid). Rhode Island's marine waters are also becoming more acidic due to increasing CO₂. This may cause severe impacts to shellfish, especially in their larval life stages.¹⁵⁵

Sea levels have risen over 9 inches in Rhode Island since 1930 as measured at the Newport tide gauge. The historic rate of sea level rise at the Newport tide gauge from 1930 to 2015 is presently 2.72 mm/year, or more than an inch per decade.¹⁵⁶ At present rates, sea levels will likely increase 1 inch between every 5 or 6 years in Rhode Island. NOAA is projecting as much as 6.6 feet of sea level rise by the end of this century in Rhode Island. In the shorter-term, NOAA predicts upwards of 1 foot by 2035 and 1.9 feet by 2050.¹⁵⁷ This has critical implications for Rhode Island, as thousands of acres of Rhode Island's coast will be affected.

Climate change is also altering the ecology and distribution of plants and animals in Rhode Island. In southern New England, spring is arriving sooner and plants are flowering earlier (one week earlier now when compared to the 1850s). For every degree of temperature rise in the spring and winter, plants flower 3.3 days earlier. For woody plants, leaf-out is occurring 18 days earlier now than in the 1850s. Changes in the timing of leaf-out, flowering, and fruiting in plants can be very disruptive to plant pollinators and seed dispersers.¹⁵⁸

Changes in the timing of annual cycles has been observed in Rhode Island birds. Based on a 45-year near-continuous record of monitoring fall migration times for passerine birds in

¹⁵³ *Id.* at 4.

¹⁵⁴ Rhode Island Executive Climate Change Coordinating Council (EC4) Science and Technical Advisory Board (STAB) Annual Report to the Full Council of the EC4 (May 2016), appendix to Rhode Island Executive Climate Change Coordinating Council Annual Report, June 2016, at 33-35, available at <http://climatechange.ri.gov/documents/ar0616.pdf>.

¹⁵⁵ *Id.*

¹⁵⁶ *Id.* at 28-30.

¹⁵⁷ *Id.*

¹⁵⁸ *Id.* at 38-40

Kingston, RI, Smith and Paton (2011) found a 3.0 days/decade delay in the departure time of 14 species of migratory birds.¹⁵⁹

VERMONT

Climate change is causing an increase in temperatures and precipitation in Vermont. Average annual temperature has increased by 1.3° F since 1960, and is projected to rise by an additional 2-3.6 ° F by 2050.¹⁶⁰ Since 1960, average annual precipitation has increased by 5.9 inches.¹⁶¹

Heavy rainfall events are becoming more common.¹⁶² Increasingly frequent heavy rains threaten to flood communities located in Vermont's many narrow river valleys. In 2011 Tropical Storm Irene dumped up to 11 inches of rain on Vermont, impacting 225 municipalities and causing \$733 million in damage.¹⁶³ More than 1,500 residences sustained significant damage, temporarily or permanently displacing more than 1400 households.¹⁶⁴ More than 500 miles of state highway, 2000 municipal road segments, and 480 bridges were damaged.¹⁶⁵ Farms, water supply and wastewater treatment facilities were also damaged, and the channels of many streams were enlarged and/or relocated.¹⁶⁶

In addition to threatening human lives and property, increasingly frequent heavy rains present challenges for state and local land use planning. Further, storm water runoff carries pollutants to the state's streams and lakes, and hinders the state's efforts to address phosphorous pollution and resulting algal blooms in Lake Champlain.

Climate change also threatens Vermont's environment and economy by affecting activities dependent on seasonal climate patterns, such as maple sugaring and winter sports.¹⁶⁷ Vermont is the nation's leading maple-syrup producing state¹⁶⁸. Warmer temperatures are likely

¹⁵⁹ *Id.*

¹⁶⁰ *Vermont Climate Change Assessment*, <http://vtclimate.org/vts-changing-climate/> (last visited Oct. 24, 2018).

¹⁶¹ *Id.*

¹⁶² *Id.*

¹⁶³ Pierre-Louis, Kendra, *Five Years After Hurricane Irene, Vermont Still Striving for Resilience*, Inside Climate News (Sept. 1, 2016), available at <https://insideclimatenews.org/news/31082016/five-years-after-hurricane-irene-2011-effects-flooding-vermont-damage-resilience-climate-change>.

¹⁶⁴ *Tropical Storm Irene by the Numbers* (Aug. 28, 2013), <http://www.vermontbiz.com/news/august/tropical-storm-irene-numbers> (last visited Oct. 24, 2018).

¹⁶⁵ *Id.*

¹⁶⁶ *Id.*

¹⁶⁷ U.S. EPA, *What Climate Change Means for Vermont* (August 2006), available at <https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-vt.pdf>.

¹⁶⁸ Vermont Agency of Agriculture Food & Markets, *Vermont Leads Nation in 2018 Maple Season Production* (June 13, 2018), <http://agriculture.vermont.gov/Vermont%20Leads%20Nation%20in%202018%20Maple%20Season%20Production> (last visited Oct. 24, 2018).

to shift the suitable habitat for sugar maples farther north into Canada.¹⁶⁹ Warmer winters may bring more rain and less snow to Vermont, harming the skiing, snowboarding, and snowmobiling industries and local economies that depend on them. *Id.* During the winter of 2016-17, Vermont recorded more than 3.9 million skier visits, second only to Colorado among the states.¹⁷⁰

Climate change is also contributing to increased distribution and abundance of ticks and increased tickborne diseases, including Lyme disease and Anaplasmosis, in Vermont.¹⁷¹ Vermont has the nation's highest per-capita incidence of Lyme Disease.¹⁷²

¹⁶⁹ U.S. EPA, *What Climate Change Means for Vermont*, *supra*.

¹⁷⁰ *Vermont ski industry rebounds to nearly 4 million visits*, Vermontbiz (June 15, 2017), <https://vermontbiz.com/news/june/vermont-ski-industry-rebounds-nearly-4-million-visits> (last visited Oct. 24, 2018).

¹⁷¹ Vermont Department of Health, *Climate Change and Tickborne Diseases*, <http://www.healthvermont.gov/health-environment/climate-health/tickborne-diseases> (last visited Oct. 24, 2018).

¹⁷² DeSmet, Nicole, *Tick-borne diseases: Getting worse, CDC study finds*, Burlington Free Press (May 9, 2018), available at <https://www.burlingtonfreepress.com/story/news/local/vermont/2018/05/09/tick-spreading-lyme-diseases-getting-worse-cdc-study-finds/589714002/>.

Attachment 3

Index of Supporting Documents for States' Comments in Docket EPA-HQ-OAR-2018-0695, and FedEx Delivery Receipt

The States of California, Illinois, Maryland, New Jersey, New Mexico, Oregon, Pennsylvania, Rhode Island, and Vermont, and the California Air Resources Board submit the following documents in support of our comments opposing the proposed rule to adopt subpart Ba requirements in Emission Guidelines for Municipal Solid Waste Landfills. *We intend for these documents to be added to the administrative record in this proceeding.*

Exhibits A-O, below, were submitted on a DVD that was sent via FedEx to EPA on January 2, 2019. On January 3, 2019, we were advised that the DVD was not received due to the ongoing federal government shutdown. (We have included the FedEx receipt and notice of failed delivery at the end of this index.) In an abundance of caution, we are attaching the majority of those documents to our electronic submission on regulations.gov (Exhibits A-H as Attachments 4-11 and Exhibits K-O as Attachments 12-16). We were not able to upload two of the documents due to their large size (Exhibits I and J). Exhibits P-U were not included on the DVD. Those documents will be attached in a separate docket entry (as Attachments 17-22), as we are limited to 20 attachments.

Ex.	EPA Docket Submission Attachment Number	Description
A	04	IPCC 2018, Press Release, Summary for Policymakers of IPCC Special Report on Global Warming of 1.5°C Approved by Governments (doc #s 4-11 available at http://www.ipcc.ch/report/sr15/)
B	05	IPCC 2018, Special Report, Global Warming of 1.5° C, Summary for Policymakers
C	06	IPCC 2018, Special Report, Global Warming of 1.5° C, Chapter 1, Framing and Context
D	07	IPCC 2018, Special Report, Global Warming of 1.5° C, Chapter 2, Mitigation pathways compatible with 1.5°C in the context of sustainable development
E	08	IPCC 2018, Special Report, Global Warming of 1.5° C, Chapter 3, Impacts of 1.5°C global warming on natural and human systems
F	09	IPCC 2018, Special Report, Global Warming of 1.5° C, Chapter 4, Strengthening and implementing the global response
G	10	IPCC 2018, Special Report, Global Warming of 1.5° C, Chapter 5, Sustainable Development, Poverty Eradication and Reducing Inequalities
H	11	IPCC 2018, Special Report, Global Warming of 1.5° C, Annex I: Glossary
I	NA*	U.S. Global Change Research Program, 2017: Climate Science Special Report: Fourth National Climate Assessment, Volume I [Wuebbles, D.J., D.W. Fahey, K.A. Hibbard, D.J. Dokken, B.C. Stewart, and T.K. Maycock (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, 470 pp., doi: 10.7930/J0J964J6 [*Due to file size, this document is submitted only via DVD sent overnight on January 2, 2019 (see delivery receipt on pages 3-6).]
J	NA*	U.S. Global Change Research Program, 2018: Fourth National Climate Assessment Impacts, Volume II: Risks, and Adaptation in the United States (D.R. Reidmiller et al., eds., 2018), https://nca2018.globalchange.gov/downloads/NCA4_2018_FullReport.pdf (Assessment) [*Due to file size, this document is submitted only via DVD sent overnight on January 2, 2019 (see delivery receipt on pages 3-6).]
K	12	California Natural Resources Agency, California's Fourth Climate Change Assessment California's Changing Climate 2018, A Summary of Key Findings
L	13	Bedsworth, Louise, California Governor's Office of Planning and Research, et al, California's Fourth Climate Change Assessment, Statewide Summary Report (2018)

M	14	Comments of the Attorneys General of New York, California, Connecticut, Delaware, Illinois, Iowa, Maine, Maryland, Massachusetts, Minnesota (by and through its Minnesota Pollution Control Agency), New Mexico, North Carolina, Oregon, Pennsylvania, Rhode Island, Vermont, Virginia, Washington, the District of Columbia, the cities of Boulder (CO), Chicago, Los Angeles, New York, Philadelphia, and South Miami (FL), and the County of Broward (FL) on [ACE Rule], Oct. 31, 2018, Doc. ID: EPA-HQ-OAR-2017-0355-21117
N	15	California Air Resources Board's Comments on Proposed [ACE] Rule, Oct. 31, 2018, Doc. IDs: EPA-HQ-OAR-2017-0355-24806, EPA-HQ-OAR-2017-0355-24810
O	16	Le Quéré, C. et al., Global Carbon Budget 2018, 10 Earth Syst. Sci. Data 2141-2194, Dec. 5, 2018, https://doi.org/10.5194/essd-10-2141-2018
P	17	Letter of May 5, 2017 from EPA Administrator E. Scott Pruitt to Mr. Carroll W. McGuffey III, et al., https://www.epa.gov/sites/production/files/2017-05/documents/signed_-_letter_-_municipal_solid_waste_landfills.pdf [This document is being submitted only via regulations.gov.]
Q	18	EPA, Clean Air Act Advisory Counsel, Mobile Sources Technical Review Subcommittee Meeting (Oct. 29, 2013), Rachel Muncrief, Short Lived Climate Pollutants: Methane and Natural Gas [This document is being submitted only via regulations.gov.]
R	19	Diffenbaugh, et al., <i>Anthropogenic Warming Has Increased Drought Risk in California</i> , 112:13 Proceedings of the Nat'l Academy of Sci. 3931 (Mar. 31, 2015) [This document is being submitted only via regulations.gov.]
S	20	Arizona Department of Environmental Quality, Submittal of State Plan for Implementing the Municipal Solid Waste Landfill Emission Guidelines for Arizona, July 24, 2018 [This document is being submitted only via regulations.gov.]
T	21	Colorado Air Pollution Control Division, Landfill Rule Change FAQ, October 2016 [This document is being submitted only via regulations.gov.]
U	22	Delaware Department of Natural Resources and Environmental Control, State Plan for the Regulation of Air Emissions from Municipal Solid Waste Landfills, May 11, 2017 [This document is being submitted only via regulations.gov.]
	23	Florida Department of Environmental Protection, Florida's Proposed Section 111(d) State Plan Submittal, April 7, 2017 [This document is being submitted only via regulations.gov.]

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ED_001764F_00011108-00069

From: TrackingUpdates@fedex.com
To: Carol Chow
Subject: FedEx Shipment 774099943975 Delivery Exception
Date: Thursday, January 03, 2019 8:27:38 AM

FedEx®

We were unable to complete delivery of your package

See "Resolving Delivery Issues" for recommended actions

See "Preparing for Delivery" for helpful tips

Tracking # 774099943975

Ship date:


Wed, 1/2/2019

JULIA K. FORGIE, DAG
CA ATTORNEY GENERALS
OFFICE
LOS ANGELES, CA 90013
US

Scheduled delivery:

Fri, 1/4/2019 by 10:30
am

EPA DOCKET CENTER
US Environmental Protection
Agency
1301 Constitution Avenue NW
EPA WJC WEST BUILDING,
ROOM 3334
WASHINGTON, DC 20004
US

 Delivery exception

Shipment Facts

FedEx attempted, but was unable to complete delivery of the following shipment:

Tracking number:	<u>774099943975</u>
Status:	Delivery exception
Reference:	14841420LA2017506516
Service type:	FedEx Standard Overnight®
Packaging type:	FedEx® Envelope
Number of pieces:	1
Weight:	0.50 lb.
Special handling/Services:	Deliver Weekday
Standard transit:	1/3/2019 by 3:00 pm

Resolving Delivery Issues

The reason delivery was not completed is outlined below. Where applicable, resolution recommendations are also provided.

Exception Reason	Recommended Action
1. Customer not Available or Business Closed	Door tag will provide the time and address of the FedEx location where you may pick up your shipment, and also indicate if another delivery attempt will be made.

Preparing for Delivery

To help ensure successful delivery of your shipment, please review the below.

Won't be in?

You may be able to hold your delivery at a convenient FedEx World Service Center or FedEx Office location for pick up. Track your shipment to determine Hold at FedEx location availability.

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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

STATE OF CALIFORNIA, et al.,

Plaintiffs,

v.

UNITED STATES ENVIRONMENTAL
PROTECTION AGENCY, et al.,

Defendants.

Case No. 18-cv-03237-HSG

**ORDER GRANTING IN PART AND
DENYING IN PART PLAINTIFFS'
MOTION FOR SUMMARY
JUDGMENT AND DENYING
DEFENDANTS' MOTION FOR
SUMMARY JUDGMENT**

Re: Dkt. Nos. 87, 92

Pending before the Court are cross-motions for summary judgment filed by Plaintiffs¹ and Defendants U.S. Environmental Protection Agency and Andrew R. Wheeler,² in his official capacity as Acting Administrator of the U.S. Environmental Protection Agency (collectively, "EPA"), briefing for which is complete. Dkt. Nos. 87 ("Pls.' Mot."), 92 ("Defs.' Mot."), 93 ("Pls.' Reply"), 94 ("Defs.' Reply"). The parties agree there is no dispute that EPA failed to fulfill certain mandatory duties under 40 C.F.R. § 60.27. *See* Dkt. No. 58. The only questions before the Court is whether Plaintiffs have standing and, if so, how long to give EPA to comply with its long-overdue nondiscretionary duties.

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¹ Plaintiffs are eight states: the State of California, by and through the Attorney General and the California Air Resources Board; the State of Illinois; the State of Maryland; the State of New Mexico; the State of Oregon; the Commonwealth of Pennsylvania; the State of Rhode Island; and the State of Vermont. Dkt. No. 1 ¶¶ 1, 10–18. Plaintiffs also include the Environmental Defense Fund ("EDF"), which the Court permitted to intervene on November 20, 2018. *See* Dkt. No. 78. EDF has represented to the Court that it only intends to proceed in this action under the existing complaint filed by the States. *See* Dkt. No. 78 at 7 n.3.

² Acting Administrator Wheeler is automatically substituted for former Administrator Scott Pruitt. *See* Fed. R. Civ. P. 25(d).

I. BACKGROUND

A. Landfill Emissions

The relevant facts in this case are not in dispute. “The United States produces roughly 265 million tons of solid waste annually, or 4.5 pounds per person, per day” Dkt. No. 1 (“Compl.”) ¶ 27; Dkt. No. 91 (“Answer”) ¶ 27. Emitted from solid waste landfills are numerous harmful pollutants, including not only greenhouse gases but also “nearly thirty different organic hazardous air pollutants,” which “present a range of public health and safety concerns.” Compl. ¶¶ 28, 36; Answer ¶¶ 28, 36. These hazardous air pollutants “are known to cause adverse health effects . . . including heart attacks, asthma, and acute bronchitis leading to premature mortality.” Compl. ¶ 36; Answer ¶ 36.

One such greenhouse gas is methane, a potent pollutant and the leading greenhouse gas behind carbon dioxide, which—along with other human-generated greenhouse gases—is “a significant driver of observed climate change.” Compl. ¶¶ 2, 29; Answer ¶¶ 2, 29. Municipal solid waste landfills in particular “are the third-largest source of [domestic] human-related methane emissions.” Compl. ¶ 29; Answer ¶ 29.

B. Landfill Emission Regulations

The Clean Air Act (“CAA” or the “Act”) “protect[s] and enhance[s] the quality of the Nation’s air resources so as to promote the public health and welfare and the productive capacity of its population.” 42 U.S.C. § 7401(b)(1).³ To that end, the Act directs the EPA Administrator to “publish . . . a list of categories of stationary sources” that “in [the Administrator’s] judgment . . . cause[], or contribute[] significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare.” *Id.* § 7411(b)(1)(A). Once the agency includes a category of stationary sources in the list, the agency must “publish proposed regulations, establishing Federal standards of performance” for emission of pollutants from new or modified sources “within such category.” *Id.* § 7411(b)(1)(B); *see also id.* § 7411(a)(2).

As relevant here, the Act also requires the regulation of “existing sources” that fall within

³ All statutory citations are to the Clean Air Act, 42 U.S.C. § 7401 *et seq.*, unless otherwise stated.

the same category, provided that the emissions are not already covered by certain other CAA programs. *See id.* § 7411(d). Specifically, the CAA states that “[t]he Administrator shall prescribe regulations which shall establish a procedure similar to that provided by section 7410 of this title under which each State shall submit to the Administrator a plan [that] establishes standards of performance,” and “provides for the implementation and enforcement of such standards of performance.” *Id.* § 7411(d)(1). The Act further provides that the Administrator has authority to promulgate a federal implementation plan “in cases where [a] State fails to submit a satisfactory plan.” *Id.* § 7411(d)(2); *see also id.* § 7410(c).

Consistent with the CAA’s instruction, EPA promulgated regulations, which established deadlines for the implementation of emission guidelines. According to the regulations, once EPA published an emission guideline, each State to which the guideline pertained was required to “adopt and submit to the Administrator . . . a plan” to implement the guideline “[w]ithin nine months.” 40 C.F.R. § 60.23(a). The agency then was required to “approve or disapprove” such implementation plans “within four months after the date required for submission of a plan or plan revision.” *Id.* § 60.27(b). Last, if states to which the guideline pertained did not submit an implementation plan or EPA disapproved of a submitted plan, the Administrator was required, “within six months after the date required for submission of a plan or plan revision, [to] promulgate [a federal plan]” to implement the guideline. *Id.* § 60.27(d).

On August 29, 2016, EPA promulgated a final rule related to Municipal Solid Waste (“MSW”) landfills. *Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills*, 81 Fed. Reg. 59,276 (Aug. 29, 2016) (“Landfill Emissions Guidelines”). The Landfill Emissions Guidelines were the result of decades of consideration, as EPA first proposed rules regulating such emissions in 1991. Compl. ¶ 38; Answer ¶ 38. And in 1996, EPA promulgated landfill emission guidelines, which explained that landfill emissions are “a significant source of air pollution” and that the guidelines aimed to “significantly reduce landfill gas emissions, which have adverse effects on human health and welfare.” *Standards of Performance for New Stationary Sources and Guidelines for Control of Existing Sources: Municipal Solid Waste Landfills*, 61 Fed. Reg. 9,905, 9,909, 9,918 (Mar. 12, 1996). The Administrator in particular determined “that

municipal solid waste landfills cause, or contribute significantly to, air pollution that may reasonably be anticipated to endanger public health or welfare.” *Id.* at 9905.

The Landfill Emissions Guidelines became effective on October 28, 2016. In turn, according to EPA’s regulations:

1. States were required to submit implementation plans by May 30, 2017, *see* 40 C.F.R. § 60.23(a)(1);
2. EPA was required to approve or disapprove submitted plans by September 30, 2017, *see* 40 C.F.R. § 60.27(b); and
3. If either (i) states to which the guideline pertained did not submit implementation plans, or (ii) EPA disapproved a submitted plan, then EPA was required to promulgate a federal plan by November 30, 2017, *see* 40 C.F.R. § 60.27(d).

As of May 30, 2017, EPA received implementation plans as described by the regulations from California and two from New Mexico—one covering Albuquerque and Bernalillo County and another covering the rest of New Mexico. Defs.’ Mot. at 1–2 & n.2 (citing Dkt. No. 92-1 (“Lassiter Decl.”) ¶ 15); *see also* Dkt. No. 58 ¶ 2. Subsequently, EPA received implementation plans from Arizona (one covering Maricopa County and another covering the remainder of the state), Delaware, and West Virginia. Defs.’ Mot. at 1–2 & n.2 (citing Lassiter Decl. ¶ 15); *see also* Dkt. No. 58 ¶ 2. To date, EPA has neither approved or disapproved of any submitted plans nor promulgated a federal plan. Dkt. No. 58 ¶¶ 1–2. Accordingly, Plaintiffs brought this action, which asks this Court to “[i]ssue a declaratory judgment that, by failing to implement and enforce the Emission Guidelines, EPA has violated the Clean Air Act,” and “[i]ssue a mandatory injunction compelling EPA to implement and enforce the Emission Guidelines.” Compl. at 19.

II. LEGAL STANDARD

Summary judgment is appropriate if, viewing the evidence and drawing all reasonable inferences in the light most favorable to the nonmoving party, “there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a); *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986).

The parties agree that this case is properly resolved on their cross-motions for summary judgment. Pls.’ Mot. at 1; Defs.’ Mot. at 6. When there is no dispute that an agency failed to timely fulfill a nondiscretionary obligation, summary judgment is the appropriate mechanism to

determine when compliance is due. *See, e.g., In re Ozone Designation Litig.*, 286 F. Supp. 3d 1082, 1085 (N.D. Cal. 2018) (setting deadlines for EPA to comply with mandatory duties under the CAA at summary judgment). In those situations, courts generally have broad equitable discretion to fix an appropriate deadline. *See Nat. Res. Def. Council v. Sw. Marine, Inc.*, 236 F.3d 985, 999–1000 (9th Cir. 2000). That said, if Congress found that a certain amount of time was appropriate for the agency to complete its statutory duty in the first instance, that timeframe generally still controls. *Sierra Club v. Thomas*, 658 F. Supp. 165, 171 (N.D. Cal. 1987).

Courts should not, however, demand a deadline for agency compliance that is impossible or infeasible. *Nat. Res. Def. Council, Inc. v. Train*, 510 F.2d 692, 713 (D.C. Cir. 1974) (“The sound discretion of an equity court does not embrace enforcement through contempt of a party’s duty to comply with an order that calls for him to do an impossibility.”) (internal quotation omitted). To determine whether a deadline is infeasible, the Court should consider: (1) whether the “budgetary” and “manpower demands” required are “beyond the agency’s capacity or would unduly jeopardize the implementation of other essential programs”; and (2) an agency’s need to have more time to sufficiently evaluate complex technical issues. *Id.* at 712–13. A delinquent agency, though, bears an “especially heavy” burden of showing infeasibility. *Thomas*, 658 F. Supp. at 172.⁴

III. DISCUSSION

EPA admits that it has failed to meet its nondiscretionary obligations to implement the Landfill Emissions Guidelines, as compelled by the CAA. *See* Dkt. No. 58. For that reason, the Court enters the declaratory judgment of liability requested by Plaintiffs. *See* Compl. at 19(1). Plaintiffs also ask the Court to compel EPA immediately to perform its nondiscretionary duties under the Landfill Emissions Guidelines. *Id.* at 19(2).

EPA does not dispute that it has failed to perform its nondiscretionary duties. Dkt. No. 58 ¶¶ 1–2. Nor does it dispute that this Court has authority to “enter an order setting a deadline for

⁴ Plaintiffs suggest that this Court should adopt an “impossibility” standard, rather than an “infeasibility” standard. Pls.’ Reply at 12. Although courts have explained that agency officials should not be required to do the impossible, the Ninth Circuit does not appear to have held that courts should impose Plaintiffs’ requested standard.

EPA to perform an obligation for which it admits liability.” *See* Defs.’ Mot. at 6. EPA argues, however, that (1) Plaintiffs lack standing, and (2) Plaintiffs’ proposed deadlines are not feasible.

A. State Plaintiffs Have Standing

EPA contends that neither the State Plaintiffs nor the intervenor-Plaintiff EDF have standing to sue. Because the Court finds the State Plaintiffs have standing, it need not evaluate whether EDF has standing. *See Rumsfeld v. Forum for Acad. & Institutional Rights, Inc.*, 547 U.S. 47, 52 n.2 (2006) (“[T]he presence of one party with standing is sufficient to satisfy Article III’s case-or-controversy requirement.”); *Int’l Brotherhood of Teamsters v. U.S. Dep’t of Transp.*, 861 F.3d 944, 951 (9th Cir. 2017) (declining to evaluate whether co-petitioners had standing).

1. Legal Standard

A plaintiff seeking relief in federal court bears the burden of establishing the “irreducible constitutional minimum” of standing. *Spokeo, Inc. v. Robins*, 136 S. Ct. 1540, 1547 (2016) (quoting *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560 (1992)). First, the plaintiff must have “suffered an injury in fact.” *Spokeo*, 136 S. Ct. at 1547. This requires “an invasion of a legally protected interest” that is concrete, particularized, and actual or imminent, rather than conjectural or hypothetical. *Lujan*, 504 U.S. at 560 (internal quotation marks omitted). Second, the plaintiff’s injury must be “fairly traceable to the challenged conduct of the defendant.” *Spokeo*, 136 S. Ct. at 1547. Third, the injury must be “likely to be redressed by a favorable judicial decision.” *Id.* (citing *Lujan*, 504 U.S. at 560–61). “States are not normal litigants for the purposes of invoking federal jurisdiction” and are “entitled to special solicitude in [the] standing analysis.” *Massachusetts v. EPA*, 549 U.S. 497, 518–20 (2007).

2. Analysis

The Court finds the State Plaintiffs are entitled to “special solicitude” under *Massachusetts v. EPA*. The Supreme Court there held that Massachusetts had standing to contest EPA’s decision not to regulate greenhouse-gas emissions that allegedly contributed to a rise in sea levels and a loss of coastal land. *Massachusetts v. EPA*, 549 U.S. at 526. It was “of considerable relevance” to the Court “that the party seeking review [was] a sovereign State and not . . . a private individual” because “States are not normal litigants for the purposes of invoking federal jurisdiction.” *Id.* at

518. The Court then identified two other factors that entitled Massachusetts “to special solicitude in [the Court’s] standing analysis.” *Id.* at 520. The first was that the CAA created a procedural right to challenge EPA’s conduct:

The parties’ dispute turns on the proper construction of a congressional statute, a question eminently suitable to resolution in federal court. Congress has moreover authorized this type of challenge to EPA action. That authorization is of critical importance to the standing inquiry: Congress has the power to define injuries and articulate chains of causation that will give rise to a case or controversy where none existed before. In exercising this power, however, Congress must at the very least identify the injury it seeks to vindicate and relate the injury to the class of persons entitled to bring suit. We will not, therefore, entertain citizen suits to vindicate the public’s nonconcrete interest in the proper administration of the laws.

Id. at 516–17 (internal quotation marks and citations omitted). The second was that EPA’s decision affected Massachusetts’s “quasi-sovereign” interest in its territory:

When a State enters the Union, it surrenders certain sovereign prerogatives. Massachusetts cannot invade Rhode Island to force reductions in greenhouse gas emissions, it cannot negotiate an emissions treaty with China or India, and in some circumstances the exercise of its police powers to reduce in-state motor-vehicle emissions might well be pre-empted.

These sovereign prerogatives are now lodged in the Federal Government, and Congress has ordered EPA to protect Massachusetts (among others) by prescribing standards applicable to the “emission of any air pollutant from any class or classes of new motor vehicle engines, which in [the Administrator’s] judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare.”

Id. at 519–20 (citation omitted) (quoting 42 U.S.C. § 7521(a)(1)).

As was the case in *Massachusetts v. EPA*, the State Plaintiffs here “are not normal litigants” for purposes of federal jurisdiction. *Id.* at 518. And just as Congress afforded Massachusetts a right to challenge EPA’s decision not to regulate greenhouse-gas emissions, Congress afforded the State Plaintiffs here the right to challenge EPA’s failure to perform its nondiscretionary duties. *Compare id.* at 517 (finding the procedural right afforded under 42 U.S.C. § 7607(b)(1)), *with* 42 U.S.C. § 7604(a)(2) (affording the present procedural right).

Despite *Massachusetts v. EPA*’s clear applicability, EPA argues that the State Plaintiffs

1 lack standing for failure to plead causation, and relatedly, redressability. Defs.’ Mot. at 9 (“[T]he
2 States fail to demonstrate either a sufficient causal connection between EPA’s inaction and the
3 alleged injuries to the States’ sovereign interests (fairly traceable) or the requested relief
4 (redressability).”). To this end, EPA relies exclusively on *Washington Environmental Council v.*
5 *Bellon*, 732 F.3d 1131 (9th Cir. 2013), in which the Ninth Circuit found the plaintiffs’ alleged
6 injuries were too attenuated to the climate change caused by the defendants’ conduct to support
7 causation. Defs.’ Mot. at 10–11.

8 The Court finds EPA’s reliance on *Bellon* unavailing. First, the *Bellon* Court explained
9 that its holding was based on two factors: (1) plaintiffs there were not sovereigns; and (2) unlike in
10 *Massachusetts v. EPA*, the plaintiffs did not provide evidence that the relevant emissions had a
11 “meaningful contribution” on greenhouse-gas levels. 732 F.3d at 1145–46. Neither factor is
12 present here. As detailed above, the parties do not dispute that the United States “produces
13 roughly 265 million tons of solid waste annually,” and that emissions from solid waste landfills
14 contain numerous harmful pollutants. *See* Answer ¶ 27. And the parties do not dispute that solid
15 waste landfills “are the third-largest source of [domestic] human-related methane emissions” and
16 that methane is the leading greenhouse gas behind carbon dioxide. *Id.* ¶¶ 2, 29. Further, the
17 Landfill Emissions Guidelines themselves—promulgated by EPA—detail the meaningful
18 contribution of landfill emissions to harmful pollution. *See* 81 Fed. Reg. at 59,276–77. And the
19 EPA Administrator long ago determined “that municipal solid waste landfills cause, or contribute
20 significantly to, air pollution that may reasonably be anticipated to endanger public health or
21 welfare.” 61 Fed. Reg. at 9,905. “Where Congress has expressed the need for specific regulations
22 relating to the environment, that expression supports an inference that there is a causal connection
23 between the lack of those regulations and adverse environmental effects.” *Nat. Res. Def. Council*
24 *v. EPA*, 542 F.3d 1235, at 1248 (9th Cir. 2008) (*NRDC*).⁵

25 For these reasons, the Court rejects EPA’s causation challenge. The Court similarly rejects
26 EPA’s redressability challenge, which is entirely derivative of its causation challenge. *See* Defs.’

27
28 ⁵ EPA made no effort to distinguish *NRDC* in either the briefing or at the hearing on these motions.

Mot. at 12–13.

B. Deadlines

Because the Court finds the State Plaintiffs have standing, the sole remaining issue is what timetable to impose on EPA for it to complete its long-overdue nondiscretionary duties. The parties each submitted proposed timetables. Plaintiffs request “strict guidelines,” including that EPA be ordered to (1) review existing state plans within thirty days, (2) promulgate a federal plan within five months, (3) respond to any future state plans within sixty days of submission, and (4) file status reports every sixty days. Pls.’ Mot. at 17–22. EPA requests (1) four to twelve months to review existing state plans, (2) twelve months to promulgate a federal plan, and (3) that the Court deny Plaintiffs’ request for imposition of deadlines for future state plans. Defs.’ Mot. at 17–25. In support of its timetables, EPA submits the Declaration of Penny Lassiter, the Acting Director of the Sector Policies and Programs Division within the Office of Air Quality Planning and Standards, Office of Air and Radiation at EPA. Lassiter Decl. ¶ 2.

As a preliminary matter, Plaintiffs argue that strict deadlines are warranted due to EPA’s longstanding recalcitrance. Pls.’ Mot. at 17–18. In Plaintiffs’ view, “[a] court order setting specific and expeditious deadlines is needed to ensure EPA follows the law.” *Id.* at 18. There is no denying EPA’s clear failure to meet its nondiscretionary duties. But that alone does not dictate deadlines. The Court is now faced with the question of feasibility. And nothing about past recalcitrance in any practical sense changes the feasibility of timelines moving forward. To be sure, EPA’s delinquency means that it has an “especially heavy” burden of showing infeasibility. *Thomas*, 658 F. Supp. at 172. But recalcitrance does not render feasible what is otherwise infeasible.

Plaintiffs also ask the Court to reject EPA’s representation that it is short-staffed, because the President’s recent budget request seeks to reduce EPA’s funding. Pls.’ Reply at 14. Again, this claim does not solve the issue at hand. As EPA notes, “the budget request is just that: the Executive’s request to Congress.” Defs.’ Reply at 6. More important, that the President may seek to reduce EPA’s future funding does not change EPA’s present capabilities.

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1. Existing State Plans

EPA received state plans from five states: California, New Mexico, Arizona, Delaware, and West Virginia. Lassiter Decl. ¶ 13. Two plans are in EPA Region 3: Delaware and West Virginia. *Id.* Two plans are in EPA Region 6: Albuquerque/Bernalillo County, New Mexico; and the rest of New Mexico. *Id.* Three plans are in EPA Region 9: Maricopa County, Arizona; the rest of Arizona; and California. *Id.*

Ms. Lassiter details five phases to the rulemaking process for state plan approval or disapproval: (1) review and analysis of submitted state plan; (2) development of rule proposal package; (3) proposed rule publication and public comment period; (4) summarization of comments, development of comment responses; and (5) development of final rule package. *Id.* ¶¶ 17–22. Ms. Lassiter provides a summary of the tasks necessary to complete each phase as well as an estimate of how long she estimates EPA will need to complete those tasks for each regional office, given that individual regional offices “review and approve or disapprove individual state plans.” *Id.* ¶ 14. Each estimate purportedly represents the “minimum time” to complete a phase. *See id.* ¶ 10.

Plaintiffs argue that EPA needs no more than thirty days to review existing state plans, as most of the state plans are less than twenty-five pages and incorporate by reference federal standards. Pls.’ Mot. at 19. EPA counters that Plaintiffs’ thirty-day proposal “is patently unreasonable” because, among other things, “the required public notice and comment period and response to public comments cannot be completed in less than 45 days.” Defs.’ Mot. at 17. EPA adds that the presumptively reasonable timeframe is the four months afforded under the regulations. *Id.* And indeed, EPA proposes a four-month timeframe for completing its review of state plans outside of EPA Region 9.

EPA, however, proposes dramatically protracted deadlines for state plans from within EPA Region 9, without a satisfactory explanation. Ms. Lassiter claims that EPA Region 9 is “operating with seriously reduced resources; [has] a significant existing backlog of actions to complete; and [has] limited staff expertise in the MSW landfill source category.” Lassiter Decl. ¶ 16. EPA adds that although California submitted a plan it considers “equivalent” to the relevant requirements

underlying the Landfill Emission Guidelines, EPA “anticipates that a line-by-line analysis will be necessary to determine” if that is true because California’s existing program predates the relevant requirements. *Id.* EPA contends that these factors support an eight-month timeframe for the Arizona proposals and a twelve-month timeframe for the California proposal.

The Court takes EPA’s representations about the phases required to conduct rulemaking for final action on state plans at face value and proceeds to analyze its proposed timetables on a phase-by-phase basis. In the review-and-analysis phase (Phase I), EPA Regions review the state plans “to determine whether [they] conform[] to the applicable statutory and regulatory requirements.” *Lassiter Decl.* ¶ 18. EPA estimates that this phase will take fifteen days for state plans submitted in regions outside of EPA Region 9, thirty-five days for the Arizona plans, and sixty-five days for the California plan. *Id.* Tbls. 1–2. For the development of rule proposal package phase (Phase II), EPA performs some technical analysis, briefs the Regional EPA Administrator, and drafts regulatory text ultimately leading to a proposed rule. *Id.* ¶ 19. EPA uses a “tiering” approach at this phase, based on the complexity of the rulemaking actions, and concedes that the present “types of rulemakings” typically fall in the least complex category. *Id.* Nonetheless, EPA estimates that this phase will take thirty days for state plans submitted in regions outside of EPA Region 9, forty days for the Arizona plans, and seventy-five days for the California plan. *Id.* Tbls. 1–2. The next phase is the notice and comment period (Phase III), which is the ordinary period for public comment on the approval or disapproval of state plans. *Id.* ¶ 20. Publication in the Federal Register typically takes two weeks, after which the public comment period is thirty days. *Id.* EPA thus estimates that this phase will take forty-five days for all state plans. *Id.* Tbls. 1–2. Following notice and comment is the summarization of comment phase (Phase IV), wherein EPA “drafts a comment summary document.” *Id.* ¶ 21. EPA estimates that this phase will take fifteen days for state plans submitted in regions outside of EPA Region 9, sixty days for the Arizona plans, and 120 days for the California plan. *Id.* Tbls. 1–2. Last is the final rule phase (Phase V), which includes briefing the Regional EPA management and producing the final regulatory package. *Id.* ¶ 22. EPA estimates that this phase will take fifteen days for state plans submitted in regions outside of EPA Region 9 and sixty days for the Arizona and

California plans. *Id.* Tbls. 1–2.

The Court begins by adopting the four-month deadline for state plans outside of EPA Region 9, which is the presumptively reasonable timeframe. Turning then to state plans within EPA Region 9, EPA has an “especially heavy” burden to prove that it is infeasible to approve or disapprove state plans in four months. *Thomas*, 658 F. Supp. at 172. The Court finds EPA has not met this burden.

Starting with Phase I, EPA’s fifteen-day estimate for non-Region 9 plans seems imminently reasonable for the Region 9 plans as well. Although Ms. Lassiter claims that EPA may need to conduct a thorough review, including potentially a “line-by-line” analysis of California’s plan, *see* Lassiter Decl. ¶ 16, the California plan is twenty pages long, *see* Dkt. No. 87-13. The Court sees no reason why even a line-by-line analysis of a twenty-page document requires sixty-five days, as EPA suggests.

As to Phase II, EPA only indicates that more time is needed in Region 9 because of “resource constraints” and “a backlog” of other work. Defs.’ Mot. at 21. The Court finds two flaws in this explanation. First, these points are true for both the Arizona plans and the California plan, and yet EPA does not explain why it purportedly needs thirty-five *more* days for the California plan. Second, Ms. Lassiter concedes in her declaration that under EPA’s “tiering” approach, the rulemaking actions at issue here fall within the least complex category of actions. Accepting that as true, the Court finds the thirty days EPA proposes for non-Region 9 state plans is reasonable across the board.

Turning next to Phase III, Plaintiffs contend that EPA could avoid a full-blown notice-and-comment process by approving the state plans with a “direct final rule,” which would be effective “without requiring further notice.” Pls.’ Reply at 13 (citing *Approval and Promulgation of State Plans for Designated Facilities and Pollutants: California*, 64 Fed. Reg. 51,447, 51,447, 51,449–50 (Sept. 23, 1999)). As EPA responds, however, “it is not clear that [the discretionary direct final rule mechanism] is appropriate” and, more important, the exemplary direct final rule Plaintiffs cite states that the reception of adverse comments would render a direct final rule ineffective. Defs.’ Reply at 2; *see also* 64 Fed. Reg. at 51,447 (“If EPA receives such comments, then it will publish

a timely withdrawal in the Federal Register informing the public that this rule will not take effect.”). The Court thus finds it unreasonable to mandate that EPA employ the direct final rule mechanism.

As to Phase IV, EPA provides no explanation whatsoever for why it can complete the summarization phase for state plans outside of Region 9 in fifteen days, but needs *sixty* days for the Arizona plans and *120* days for the California plan. *See* Defs.’ Mot. at 21 (stating summarily that “Phase IV . . . will take 60 and 120 days, for the Arizona plans and the California plan, respectively”). The Court finds that EPA has not met its “especially heavy” burden of demonstrating it needs more than fifteen days with such conclusory statements. *See Thomas*, 658 F. Supp. at 172.

Last, as to Phase V, EPA again provides no explanation whatsoever for why it can complete the final rule phase for state plans outside of Region 9 in fifteen days, but needs sixty days for the Arizona and California plans. *See* Defs.’ Mot. at 21 (“For the same reasons, Phase V, development of final rule package, is estimated to take 60 days.”). The Court again finds that EPA has not met its “especially heavy” burden of demonstrating it needs more than fifteen days with such conclusory statements. *See Thomas*, 658 F. Supp. at 172.

For these reasons, the Court adopts the four-month timetable EPA set forth for state plans outside of Region 9, but finds that EPA must meet the same timetable for plans within Region 9.

2. Federal Plan

Although the presumptively reasonable timeframe to promulgate a federal plan is six months—given the regulations—Plaintiffs argue that EPA needs no more than five months to propose a single federal plan, receive comments, and finalize it. Pls.’ Mot. at 20–21. EPA counters that it needs twelve months—twice the regulatory timeframe. *See* Defs.’ Mot. at 21–25. To this end, Ms. Lassiter details six phases to the rulemaking process for finalizing a federal plan, which are the same five phases described for action on state plans “plus a prefatory project kick-off phase.” *Id.* at 21 (citing Lassiter Decl. ¶¶ 23–24). Ms. Lassiter again provides a summary of the tasks necessary to complete each phase as well as an estimate of how long she estimates EPA will need to complete those tasks. *Id.* ¶¶ 23–29.

Although the Court takes EPA's representations about the phases required to conduct rulemaking for final action on a federal plan at face value, it rejects EPA's overall timetable for promulgation of a federal plan. Due to EPA's delinquency, it bears an "especially heavy" burden to prove that six months is infeasible. *See Thomas*, 658 F. Supp. at 172. Merely describing what tasks must be performed in the various phases as EPA does is thus unhelpful, as those steps presumably have always been required. It is EPA's burden to go beyond a description of the process and instead explain why it cannot complete the process within six months. And on this point EPA cites to only one factor: EPA staff members "with responsibility for rule writing" and the requisite knowledge and expertise "required for the development of a federal plan . . . are working on" other matters with court-ordered deadlines. Defs.' Mot. at 24–25 (citing *Lassiter Decl.* ¶¶ 10, 12); *see also Cmty. In-Power & Dev. Ass'n, Inc. v. Pruitt*, 304 F. Supp. 3d 212, 225 (D.D.C. 2018) (ordering EPA "to complete all nine overdue rulemakings no later than October 1, 2021"); *Blue Ridge Envtl. Def. League v. Pruitt*, 261 F. Supp. 3d 53, 61 (D.D.C. 2017) (ordering EPA "to complete RTRs [Risk and Technology Reviews] for at least 7 overdue source categories by December 31, 2018, and to complete the remaining 6 RTRs by June 30, 2020"); *Cal. Cmty. Against Toxics v. Pruitt*, 241 F. Supp. 3d 199, 207 (D.D.C. 2017) (ordering EPA to perform overdue rulemaking as to "20 source category RTRs within three years"). Put differently, EPA seeks additional time to complete a nondiscretionary duty it failed to meet until ordered to act by the Court, because it faces other court orders to perform other unmet nondiscretionary duties. The Court finds EPA's self-inflicted inconvenience, by itself, does not satisfy the "especially heavy" burden necessary to warrant more than six months to promulgate a federal plan. *See Thomas*, 658 F. Supp. at 172.

3. Future State Plans

Plaintiffs finally ask this Court to "order EPA to respond to any future state plan submissions within two months." Pls.' Mot. at 21. Plaintiffs maintain that "[m]any states did not submit plans by the deadline because EPA affirmatively encouraged them not to," and thus "this Court should require EPA to quickly review and determine if [future plans are] approvable." *Id.* The EPA counters that this Court lacks jurisdiction to order EPA to take action based on future

plans because the “EPA has not yet missed any deadline to take final action on such plans.” Defs.’ Mot. at 25.

The Court finds that it does not yet have jurisdiction to order EPA to act based on as-yet-unmissed deadlines. As EPA notes, the CAA citizen suit provision under which Plaintiffs brought suit only vests jurisdiction in district courts “*after* EPA has failed to undertake some mandatory action prior to a certain deadline.” *Id.* (quoting *Sierra Club v. Browner*, 130 F. Supp. 2d 78, 93 (D.D.C. 2001) and citing 42 U.S.C. § 7604(a)). In response, Plaintiffs cite to no authority to the contrary, but nonetheless urge this Court to exercise “close oversight in this matter,” given that “EPA has shown that it has no intention of implementing the Emission Guidelines absent a specific court order, that it will implement them only in the narrowest way required, and that it will only fulfill additional mandatory obligations if it is haled into court again.” Pls.’ Reply at 15 (internal citations omitted). Whether or not that characterization is accurate, the Court finds that the proper remedy given the jurisdiction-vesting statute is limited to compelling EPA to perform mandatory duties it has already failed to perform.

IV. CONCLUSION

For the foregoing reasons, the Court hereby **GRANTS IN PART** and **DENIES IN PART** Plaintiffs’ motion for summary judgment and enters judgment in favor of Plaintiffs and against Defendants. The terms of the judgment are as follows:

- (1) The Court **DECLARES** that Defendants U.S. Environmental Protection Agency and Andrew R. Wheeler, in his official capacity as Acting Administrator of the U.S. Environmental Protection Agency, have failed to perform non-discretionary duties imposed by 40 C.F.R. § 60.27 to both (1) approve or disapprove existing state plans submitted to EPA addressing emission guidelines promulgated for municipal solid waste landfills within four months of receipt, and (2) promulgate regulations setting forth a federal plan addressing the emission guidelines promulgated for municipal solid waste landfills by November 30, 2017, both in violation of the Clean Air Act;
- (2) The Court **ORDERS** Defendants to approve or disapprove of existing state plans, as required by 40 C.F.R. § 60.27(b), no later than September 6, 2019;

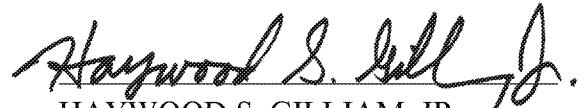
(3) The Court **ORDERS** Defendants to promulgate regulations setting forth a federal plan, as required by 40 C.F.R. § 60.27(d), no later than November 6, 2019;

(4) The Court **ORDERS** Defendants to file status reports with the Court every ninety days—such that the first status report is due August 5, 2019—detailing EPA’s progress in complying with this order.

The Clerk is directed to enter judgment in favor of Plaintiffs and close the case. The Court retains jurisdiction to make such orders as may be necessary or appropriate.

IT IS SO ORDERED.

Dated: 5/6/2019


HAYWOOD S. GILLIAM, JR.
United States District Judge

United States District Court
Northern District of California

BRIEF

Court: EPA must review landfill emissions plans after years of delay

Cole Rosengren

By

Published May 8, 2019

Dive Brief:

- The EPA has been required by a federal judge in California to move forward on implementation of 2016 Emission Guidelines for landfills. Per the ruling, the agency must now review compliance plans from the five states that have submitted them by Sept. 6 and set forth a federal plan by Nov. 6.
- The judge did not rule on when or how EPA should review future plan submissions from the remaining states, given that its jurisdiction is "limited to compelling EPA to perform mandatory duties it has already failed to perform." The agency's previously proposed submission deadline is Aug. 29.
- California Attorney General Xavier Becerra — who led the lawsuit along with the California Air Resources Board, Pennsylvania Department of Environmental Protection and six other attorneys general — celebrated the ruling. The NWRA and SWANA, which were initially proponents of the agency's delay, declined to comment.

Dive Insight:

Under the Obama administration, the EPA finalized the Emissions Guidelines and New Source Performance Standards rules to

address changes in the landfill industry since prior rulemaking in 1996. The former applies to any landfill that accepted waste after Nov. 8, 1987. The latter focuses specifically on sites that commenced "construction, reconstruction, or modification" after July 17, 2014.

While these rules were finalized in Aug. 2016, the waste industry (led by Waste Management, Republic Services, NWRA and SWANA) asked for reconsideration in Oct. 2016. Following the election of President Trump, former EPA Administrator Scott Pruitt offered a more sympathetic ear to these arguments and granted a 90-day administrative stay in May 2017. Once that stay expired, EPA remained quiet on its intentions to review then-due state plans. The agency confirmed to Waste Dive exclusively in October, 2017 it would not be sanctioning states that hadn't submitted EG plans yet.

Since then, the agency has been engaged in a legal back-and-forth with both the coalition of eight states as well as national environmental groups to determine when and how these rules might actually get enforced. Amid of all this, the rules have taken effect and landfill operators have watched with great uncertainty about what comes next.

To date, five states (California, New Mexico, Arizona, Delaware, and West Virginia) have submitted plans that await review by the agency. Many other states have held off on submitting their own plans, given that the EPA has so far refused to read them, but remain engaged in the outcome. Along with California and Pennsylvania, Illinois, Maryland, New Mexico, Oregon, Rhode Island and Vermont were also part of the 2018 lawsuit that led to this latest court decision.


The court decision shows EPA's resistance was not just about implementing the regulations themselves, but also about the time

required to review state plans and move forward with a federal plan. While plaintiffs were requesting state plan review and approval within 30 days, the agency was requesting upward of 8-12 months for certain states in the purportedly understaffed Region 9. The EPA also cited President Trump's repeated requests to reduce agency staffing, as well as ongoing time spent on other legal matters, as extenuating factors. The court ruled that EPA's "self-inflicted inconvenience" from the latter was not a satisfactory excuse for delay.

EPA has now been ordered to provide a status update every 90 days, starting Aug. 5, to track its progress on complying with the court's order. Timing on the review of remaining state plans is still unclear. It's possible there could be further legal avenues for the industry to challenge this decision, but sources indicate those options have now become more limited.

Recommended Reading:

 WASTE DIVE

EPA attempts to stall court action over enforcement of landfill emissions rule 

Message

From: McNeal, Dave [Mcneal.Dave@epa.gov]
Sent: 8/21/2018 5:10:35 PM
To: Sheppard, Andrew [sheppard.andrew@epa.gov]
Subject: Subpart Cf messaging
Attachments: 02_26_2018_CARB_CoreyLtr.pdf

Andrew,

Has there been any change in EPA messaging regarding Subpart Cf since the attached Region 9 letter went out in February?

Thanks,

David McNeal
EPA Region 4
404-562-910



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

FEB 26 2018

Mr. Richard W. Corey
Executive Officer
California Air Resources Board
1001 I Street
P.O. Box 2815
Sacramento, California 95812

Dear Mr. Corey:

I am writing in response to your December 4, 2017 letter concerning the Landfill Emission Guidelines (EG) recently promulgated by the Environmental Protection Agency (EPA) and located at 40 CFR Part 60, Subpart Cf. We have received the California Air Resources Board's (CARB) May 30, 2017 state plan to implement the EG. As you may know, in May 2017 the EPA announced it is reconsidering several issues in the 2016 final rules for Municipal Solid Waste Landfills New Source Performance Standards (NSPS) and EG. On May 31, 2017, the EPA issued a 90-day stay on the 2016 EG. The 90-day stay expired on August 29, 2017; thus, the 2016 rules are currently in effect. The EPA still intends to complete the reconsideration process granted by the Administrator.

Since the Agency is reconsidering various issues regarding the landfill regulations, at this time we do not plan to prioritize the review of submitted state plans nor are we working to issue a Federal Plan for states that failed to submit a state plan. Please also note that under 40 CFR § 60.27(c), the requirement for the EPA to develop a Federal Plan has not been triggered for the State of California since CARB has submitted a timely plan. Additionally, we are currently working to align our reconsideration of certain portions of the EG with the risk and technology review (RTR) for this source category. The EPA has a court order to complete the RTR by March 13, 2020 and the reconsideration will be finished on the same timeline.

Thank you for your letter and I hope this message allays your concerns about a Federal Plan. If you have any questions about this letter, please call me at (415) 972-3851 or Amy Zimpfer at (415) 947-4146 or have your staff contact Jeffrey Buss at (415) 947-4152 or Lisa Beckham at (415) 972-3811.

Sincerely,

A handwritten signature in black ink, appearing to read "Matthew J. Lakin", is positioned above the typed name.

Matthew J. Lakin
Acting Director, Air Division

cc: Shannon Martin Dilley, Counsel
CARB Legal Office

Message

From: Spangler, Matthew [Spangler.Matthew@epa.gov]
Sent: 9/18/2018 4:29:49 PM
To: Sheppard, Andrew [sheppard.andrew@epa.gov]
Subject: RE: Ameresco/JCL question re AAAA NESHAP

Thanks for the quick reply. I'll go with the second suggestion, for the reason you provided.

Matt Spangler
U.S. EPA/ OAQPS/ AQPD/ OPG
(919) 541-0327 | spangler.matthew@epa.gov

From: Sheppard, Andrew
Sent: Tuesday, September 18, 2018 12:27 PM
To: Spangler, Matthew <Spangler.Matthew@epa.gov>
Subject: RE: Ameresco/JCL question re AAAA NESHAP

I would go with (subpart AAAA NESHAP, HAP standards for landfills promulgated in 2003).

NESHAP kind of says what it is just in its name, so you could just shorten to (subpart AAAA NESHAP promulgated in 2003).

Andy Sheppard
U.S. EPA, Sector Policies and Programs Division, OAQPS
Natural Resources Group
(919)541-4161

From: Spangler, Matthew
Sent: Tuesday, September 18, 2018 12:18 PM
To: Sheppard, Andrew <sheppard.andrew@epa.gov>
Subject: Ameresco/JCL question re AAAA NESHAP

Andy, we just got edits from Justin Schwab (OGC political) on the Ameresco/JCL common control letter. One of his suggestions was to add parentheticals briefly describing the various landfill standards in an existing footnote. He left the parenthetical for the subpart AAAA NESHAP blank, and I was hoping you could help fill it in in a similar fashion to the NSPS/EG references.

Here's the text:

See 40 CFR §§ 60.750–.759 (subpart WWW NSPS, the new-source landfill rule promulgated in 1996); *id.* §§ 60.760–.769 (subpart XXX NSPS, the new-source landfill rule promulgated in 2016). Although this letter implicates the NSPS subpart WWW and XXX standards, similar issues could potentially arise related to other EPA standards applicable to certain landfills, including EPA's existing source emission guidelines promulgated under CAA § 111(d) (and state plans implementing these guidelines) as well as EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP) applicable to landfills. See *id.* §§ 60.30c–.36c (subpart Cc emission guidelines, the existing-source landfill rule promulgated in 1996); *id.* §§ 60.30f–.41f (subpart Cf emission guidelines, the existing-source landfill rule promulgated in 2016); *id.* §§ 63.1930–.1990 (subpart AAAA NESHAP, the _____).

Thanks!

Matt Spangler
U.S. EPA/ OAQPS/ AQPD/ OPG

(919) 541-0327 | spangler.matthew@epa.gov

Message

From: Dunkins, Robin [Dunkins.Robin@epa.gov]
Sent: 8/9/2018 10:01:11 PM
To: Mary Douglas [mdouglas@4cleanair.org]; Sheppard, Andrew [sheppard.andrew@epa.gov]; Costa, Allison [Costa.Allison@epa.gov]
CC: Miller, Scott (DEQ) [MILLERS@michigan.gov]; Morgan, Dave (DEQ) [MORGAND2@michigan.gov]; 'bill.o'sullivan@dep.nj.gov' [bill.o'sullivan@dep.nj.gov]; Colby Bob (bcolby@chattanooga.gov) [bcolby@chattanooga.gov]
Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Mary,

Let me get back to you tomorrow on the times you listed. I'm assuming we're allocating an hour to this call, correct?

Robin Dunkins, Group Leader
Natural Resources Group
OAR/OAQPS/SPPD Mail Code: E143-03
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711
919-541-5335
dunkins.rob@epa.gov

From: Mary Sullivan Douglas [mailto:mdouglas@4cleanair.org]
Sent: Monday, August 06, 2018 5:32 PM
To: Dunkins, Robin <Dunkins.Robin@epa.gov>; Sheppard, Andrew <sheppard.andrew@epa.gov>; Costa, Allison <Costa.Allison@epa.gov>
Cc: Miller, Scott (DEQ) <MILLERS@michigan.gov>; Morgan, Dave (DEQ) <MORGAND2@michigan.gov>; 'bill.o'sullivan@dep.nj.gov' <bill.o'sullivan@dep.nj.gov>; Colby Bob (bcolby@chattanooga.gov) <bcolby@chattanooga.gov>
Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Hi, Robin,

I'd like to find a time when we could talk by phone, including Scott Miller and Dave Morgan of Michigan, so they can better explain the questions.

The following times would work:

Mon, August 13, between 10 a.m. and 12 noon

Wed, August 15, after 1:30 p.m.

Do any of these work for you?

Thanks.

Mary

From: Dunkins, Robin [mailto:Dunkins.Robin@epa.gov]
Sent: Wednesday, August 01, 2018 5:41 PM
To: Mary Sullivan Douglas; Sheppard, Andrew; Costa, Allison

Cc: Miller, Scott (DEQ)

Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Mary,

Please feel free to give me a call to discuss.

Thanks,

robin

Robin Dunkins, Group Leader

Natural Resources Group

OAR/OAQPS/SPPD Mail Code: E143-03

U.S. Environmental Protection Agency

Research Triangle Park, NC 27711

919-541-5335

dunkins.robin@epa.gov

From: Mary Sullivan Douglas [<mailto:mdouglas@4cleanair.org>]

Sent: Tuesday, July 24, 2018 11:26 AM

To: Sheppard, Andrew <sheppard.andrew@epa.gov>; Dunkins, Robin <Dunkins.Robin@epa.gov>; Costa, Allison <Costa.Allison@epa.gov>

Cc: Miller, Scott (DEQ) <MILLERS@michigan.gov>

Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Hi, Andy, Robin and Allison,

We provided some info to our members in follow-up to the call we had on MSW Landfills. There is confusion about an issue that we hope you can address. If I can impose upon you to read this thread from the bottom, you will have a better understanding of the questions than if I try to formulate a (possibly incorrect) synopsis. In the email at the bottom, I forwarded to our committee some info from one of our members. The emails that ensued highlight an area that could use some clarification.

Thanks for any info.

Mary

Mary Sullivan Douglas

National Association of Clean Air Agencies

444 North Capitol Street, NW, Suite 307

Washington, DC 20001

(202) 624-7864

mdouglas@4cleanair.org

www.4cleanair.org

From: Miller, Scott (DEQ) [<mailto:MILLERS@michigan.gov>]

Sent: Tuesday, July 24, 2018 10:05 AM

To: Mary Sullivan Douglas

Subject: FW: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Hi Mary,

I'm forwarding some internal correspondence related to the MSW NSPS applicability. Confusion still remains on this issue. It would be nice to get clarification from EPA.

Scott Miller
MDEQ Air Quality Supervisor
District Coordinator
Jackson District Office, 301 E Louis Glick Hwy, Jackson, MI 49201
517.416.5992

From: Morgan, Dave (DEQ)

Sent: Tuesday, July 24, 2018 9:45 AM

To: McCann, Gina (DEQ) <McCannG2@michigan.gov>; Brothers, Monica (DEQ) <BrothersM@michigan.gov>; Brunner, Julie (DEQ) <BRUNNERJ1@michigan.gov>; Deskins, Matthew (DEQ) <DESKINSM@michigan.gov>; Dickman, Rob (DEQ) <DICKMANR@michigan.gov>; Durham, Zachary (DEQ) <DurhamZ@michigan.gov>; Joseph, Robert (DEQ) <JosephR4@michigan.gov>; Kavanaugh Vetort, Diane (DEQ) <KAVANAUGHHD@michigan.gov>; Konanahalli, Iranna (DEQ) <KONANAHALLII@michigan.gov>; Lamb, Jonathan (DEQ) <LAMBJ1@michigan.gov>; Scanlan, Joseph (DEQ) <ScanlanJ@michigan.gov>; Zimmerman, Jill (DEQ) <ZimmermanJ3@michigan.gov>

Cc: Miller, Scott (DEQ) <MILLERS@michigan.gov>

Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Yes, but the QA document also says this:

A MSW landfill will no longer be covered under Subpart WWW by the way of the NSPS program. However, although, the Subpart WWW will no longer apply, the landfill would still be covered by NESHAP AAAA, which refers to Subpart WWW. The landfill will have to comply with NESHAP AAAA up and beyond the Subpart XXX's 30-month window for the installation and startup of the collection and control system. The Subpart WWW requirements would still stand by the way of the NESHAP AAAA. The landfill will have to comply with, both, NESHAP AAAA and the Subpart XXX operational standards for collection and control system requirements, however, the most stringent of the two sets of requirements would apply.

They are trying to make a clear distinction that only one NSPS applies at a time. However, the paragraph above says that AAAA would still apply and essentially the requirements of AAAA are WWW. They then conclude that you use the most stringent requirements which all leads us back to identifying both WWW and XXX requirements in the ROPs and applying the most stringent of the two.

From: McCann, Gina (DEQ)

Sent: Tuesday, July 24, 2018 9:20 AM

To: Brothers, Monica (DEQ) <BrothersM@michigan.gov>; Brunner, Julie (DEQ) <BRUNNERJ1@michigan.gov>; Deskins, Matthew (DEQ) <DESKINSM@michigan.gov>; Dickman, Rob (DEQ) <DICKMANR@michigan.gov>; Durham, Zachary (DEQ) <DurhamZ@michigan.gov>; Joseph, Robert (DEQ) <JosephR4@michigan.gov>; Kavanaugh Vetort, Diane (DEQ) <KAVANAUGHHD@michigan.gov>; Konanahalli, Iranna (DEQ) <KONANAHALLII@michigan.gov>; Lamb, Jonathan (DEQ) <LAMBJ1@michigan.gov>; Morgan, Dave (DEQ) <MORGAND2@michigan.gov>; Scanlan, Joseph (DEQ) <ScanlanJ@michigan.gov>; Zimmerman, Jill (DEQ) <ZimmermanJ3@michigan.gov>

Cc: Miller, Scott (DEQ) <MILLERS@michigan.gov>

Subject: FW: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Hey All,

I haven't had a chance to read it all, but Erica pointed this out.

Check out the QA responses from EPA, from the first link below...

Under the NSPS program, a MSW landfill can only be subject to one NSPS; Once a modified MSW landfill becomes subject to Subpart XXX that MSW landfill is no longer subject to Subpart WWW or EG.

Gina

From: air_toxics@lists.4cleanair.org <air_toxics@lists.4cleanair.org> **On Behalf Of** Mary Sullivan Douglas
Sent: Monday, July 23, 2018 4:30 PM
To: air_toxics@lists.4cleanair.org
Subject: Follow-up -- MSW Landfills Call with EPA - 7/11/18

TO: NACAA AIR TOXICS COMMITTEE

On July 11, 2018, the NACAA Air Toxics Committee had a call with EPA staff to discuss the Risk and Technology Review for the Municipal Solid Waste Landfills NESHAP, as well as the reconsideration of the NSPS and Emission Guidelines for this source category that were amended in 2016 (see email thread below to refresh your memories). In follow-up to the call, Dan Brinsko (New York) provided the following additional information:

From: Brinsko, Dan (DEC) [<mailto:dan.brinsko@dec.ny.gov>]
Sent: Monday, July 16, 2018 11:53 AM
To: Mary Sullivan Douglas
Subject: NACAA/EPA MSW Landfill Call

Hi Mary,

As per the NACAA/EPA Landfill call we wanted to share the response we (i.e., Chris LaLone NYSDEC) got recently from EPA R-2 (consulting with HQ) for guidance on applicability with NSPS Subparts WWW, XXX and NESHAP AAAA. Find ~~attached~~ [linked below] three documents starting with the main document 'Landfill applicability QA.pdf' which summarizes the questions and EPA's responses. We hope this helps and leads to states finally obtaining some written guidance from EPA on this matter...

http://www.4cleanair.org/sites/default/files/Documents/Landfill_applicability_QA.pdf
http://www.4cleanair.org/sites/default/files/Documents/Subpart_XXX_Clarification_of_Compliance_Date_Email.pdf
<http://www.4cleanair.org/sites/default/files/Documents/BartonLoguidice.pdf>

Thanks,
Dan Brinsko, P.E.
Professional Engineer 1
Division of Air Resources
NYS Department of Environmental Conservation
625 Broadway, Albany NY 12233-3254
518-402-8403

Message

From: Mary Sullivan Douglas [mdouglas@4cleanair.org]
Sent: 8/6/2018 9:32:01 PM
To: Dunkins, Robin [Dunkins.Robin@epa.gov]; Sheppard, Andrew [sheppard.andrew@epa.gov]; Costa, Allison [Costa.Allison@epa.gov]
CC: Miller, Scott (DEQ) [MILLERS@michigan.gov]; Morgan, Dave (DEQ) [MORGAND2@michigan.gov]; 'bill.o'sullivan@dep.nj.gov' [bill.o'sullivan@dep.nj.gov]; Colby Bob (bcolby@chattanooga.gov) [bcolby@chattanooga.gov]
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Cc: Miller, Scott (DEQ)
Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

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Thanks,
robin

Robin Dunkins, Group Leader
Natural Resources Group
OAR/OAQPS/SPPD Mail Code: E143-03
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711
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Cc: Miller, Scott (DEQ) <MILLERS@michigan.gov>

Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

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Thanks for any info.

Mary

Mary Sullivan Douglas
National Association of Clean Air Agencies
444 North Capitol Street, NW, Suite 307
Washington, DC 20001
(202) 624-7864
mdouglas@4cleanair.org
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From: Miller, Scott (DEQ) [<mailto:MILLERS@michigan.gov>]
Sent: Tuesday, July 24, 2018 10:05 AM
To: Mary Sullivan Douglas
Subject: FW: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Hi Mary,

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Scott Miller
MDEQ Air Quality Supervisor
District Coordinator
Jackson District Office, 301 E Louis Glick Hwy, Jackson, MI 49201
517.416.5992

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Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

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From: McCann, Gina (DEQ)
Sent: Tuesday, July 24, 2018 9:20 AM
To: Brothers, Monica (DEQ) <BrothersM@michigan.gov>; Brunner, Julie (DEQ) <BRUNNERJ1@michigan.gov>; Deskins, Matthew (DEQ) <DESKINSM@michigan.gov>; Dickman, Rob (DEQ) <DICKMANR@michigan.gov>; Durham, Zachary (DEQ) <DurhamZ@michigan.gov>; Joseph, Robert (DEQ) <JosephR4@michigan.gov>; Kavanaugh Vetort, Diane (DEQ) <KAVANAUGHHD@michigan.gov>; Konanahalli, Iranna (DEQ) <KONANAHALLII@michigan.gov>; Lamb, Jonathan (DEQ) <LAMBJ1@michigan.gov>; Morgan, Dave (DEQ) <MORGAND2@michigan.gov>; Scanlan, Joseph (DEQ) <ScanlanJ@michigan.gov>; Zimmerman, Jill (DEQ) <ZimmermanJ3@michigan.gov>
Cc: Miller, Scott (DEQ) <MILLERS@michigan.gov>
Subject: FW: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Hey All,

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Check out the QA responses from EPA, from the first link below...

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Gina

From: air_toxics@lists.4cleanair.org <air_toxics@lists.4cleanair.org> **On Behalf Of** Mary Sullivan Douglas
Sent: Monday, July 23, 2018 4:30 PM
To: air_toxics@lists.4cleanair.org
Subject: Follow-up -- MSW Landfills Call with EPA - 7/11/18

TO: NACAA AIR TOXICS COMMITTEE

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this source category that were amended in 2016 (see email thread below to refresh your memories). In follow-up to the call, Dan Brinsko (New York) provided the following additional information:

From: Brinsko, Dan (DEC) [mailto:dan.brinsko@dec.ny.gov]
Sent: Monday, July 16, 2018 11:53 AM
To: Mary Sullivan Douglas
Subject: NACAA/EPA MSW Landfill Call

Hi Mary,

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<http://www.4cleanair.org/sites/default/files/Documents/BartonLoguidice.pdf>

Thanks,
Dan Brinsko, P.E.
Professional Engineer 1
Division of Air Resources
NYS Department of Environmental Conservation
625 Broadway, Albany NY 12233-3254
518-402-8403

Message

From: Dunkins, Robin [Dunkins.Robin@epa.gov]
Sent: 8/1/2018 9:40:56 PM
To: Mary Douglas [mdouglas@4cleanair.org]; Sheppard, Andrew [sheppard.andrew@epa.gov]; Costa, Allison [Costa.Allison@epa.gov]
CC: Miller, Scott (DEQ) [MILLERS@michigan.gov]
Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Mary,
Please feel free to give me a call to discuss.

Thanks,
robin

Robin Dunkins, Group Leader
Natural Resources Group
OAR/OAQPS/SPPD Mail Code: E143-03
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711
919-541-5335
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444 North Capitol Street, NW, Suite 307
Washington, DC 20001
(202) 624-7864
mdouglas@4cleanair.org
www.4cleanair.org

From: Miller, Scott (DEQ) [<mailto:MILLERS@michigan.gov>]
Sent: Tuesday, July 24, 2018 10:05 AM
To: Mary Sullivan Douglas
Subject: FW: Follow-up -- MSW Landfills Call with EPA - 7/11/18

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I'm forwarding some internal correspondence related to the MSW NSPS applicability. Confusion still remains on this issue. It would be nice to get clarification from EPA.

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District Coordinator
Jackson District Office, 301 E Louis Glick Hwy, Jackson, MI 49201
517.416.5992

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To: Mary Sullivan Douglas
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Thanks,
Dan Brinsko, P.E.
Professional Engineer 1
Division of Air Resources
NYS Department of Environmental Conservation
625 Broadway, Albany NY 12233-3254
518-402-8403

Message

From: Mary Sullivan Douglas [mdouglas@4cleanair.org]
Sent: 7/24/2018 3:25:44 PM
To: Sheppard, Andrew [sheppard.andrew@epa.gov]; Dunkins, Robin [Dunkins.Robin@epa.gov]; Costa, Allison [Costa.Allison@epa.gov]
CC: Miller, Scott (DEQ) [MILLERS@michigan.gov]
Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

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From: Miller, Scott (DEQ) [mailto:MILLERS@michigan.gov]
Sent: Tuesday, July 24, 2018 10:05 AM
To: Mary Sullivan Douglas
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Sent: Monday, July 23, 2018 4:30 PM
To: air_toxics@lists.4cleanair.org
Subject: Follow-up -- MSW Landfills Call with EPA - 7/11/18

TO: NACAA AIR TOXICS COMMITTEE

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Sent: Monday, July 16, 2018 11:53 AM

To: Mary Sullivan Douglas

Subject: NACAA/EPA MSW Landfill Call

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Thanks,

Dan Brinsko, P.E.

Professional Engineer 1

Division of Air Resources

NYS Department of Environmental Conservation

625 Broadway, Albany NY 12233-3254

518-402-8403

Message

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Sent: 8/10/2018 4:05:54 PM
To: Dunkins, Robin [Dunkins.Robin@epa.gov]; Sheppard, Andrew [sheppard.andrew@epa.gov]; Costa, Allison [Costa.Allison@epa.gov]
CC: Miller, Scott (DEQ) [MILLERS@michigan.gov]; Morgan, Dave (DEQ) [MORGAND2@michigan.gov]; 'bill.o'sullivan@dep.nj.gov' [bill.o'sullivan@dep.nj.gov]; Colby Bob (bcolby@chattanooga.gov) [bcolby@chattanooga.gov]
Subject: Re: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Thanks. I have another call at 12:30, but we should be able to finish by then.

From: Dunkins, Robin <Dunkins.Robin@epa.gov>
Sent: Friday, August 10, 2018 11:50 AM
To: Mary Sullivan Douglas; Sheppard, Andrew; Costa, Allison
Cc: Miller, Scott (DEQ); Morgan, Dave (DEQ); 'bill.o'sullivan@dep.nj.gov'; Colby Bob (bcolby@chattanooga.gov)
Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Mary,
Monday at noon works for us. I will have Andy send out a meeting scheduler.

Robin Dunkins, Group Leader
Natural Resources Group
OAR/OAQPS/SPPD Mail Code: E143-03
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711
919-541-5335
dunkins.robin@epa.gov

From: Mary Sullivan Douglas [mailto:mdouglas@4cleanair.org]
Sent: Thursday, August 09, 2018 7:29 PM
To: Dunkins, Robin <Dunkins.Robin@epa.gov>; Sheppard, Andrew <sheppard.andrew@epa.gov>; Costa, Allison <Costa.Allison@epa.gov>
Cc: Miller, Scott (DEQ) <MILLERS@michigan.gov>; Morgan, Dave (DEQ) <MORGAND2@michigan.gov>; 'bill.o'sullivan@dep.nj.gov' <bill.o'sullivan@dep.nj.gov>; Colby Bob (bcolby@chattanooga.gov) <bcolby@chattanooga.gov>
Subject: Re: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Yes, if that much time is even needed.

From: Dunkins, Robin <Dunkins.Robin@epa.gov>
Sent: Thursday, August 9, 2018 6:01 PM
To: Mary Sullivan Douglas; Sheppard, Andrew; Costa, Allison
Cc: Miller, Scott (DEQ); Morgan, Dave (DEQ); 'bill.o'sullivan@dep.nj.gov'; Colby Bob

(bcolby@chattanooga.gov)

Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Mary,

Let me get back to you tomorrow on the times you listed. I'm assuming we're allocating an hour to this call, correct?

Robin Dunkins, Group Leader
Natural Resources Group
OAR/OAQPS/SPPD Mail Code: E143-03
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711
919-541-5335
dunkins.rob@epa.gov

From: Mary Sullivan Douglas [<mailto:mdouglas@4cleanair.org>]

Sent: Monday, August 06, 2018 5:32 PM

To: Dunkins, Robin <Dunkins.Robin@epa.gov>; Sheppard, Andrew <sheppard.andrew@epa.gov>; Costa, Allison <Costa.Allison@epa.gov>

Cc: Miller, Scott (DEQ) <MILLERS@michigan.gov>; Morgan, Dave (DEQ) <MORGAND2@michigan.gov>; 'bill.o'sullivan@dep.nj.gov' <bill.o'sullivan@dep.nj.gov>; Colby Bob (bcolby@chattanooga.gov) <bcolby@chattanooga.gov>

Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Hi, Robin,

I'd like to find a time when we could talk by phone, including Scott Miller and Dave Morgan of Michigan, so they can better explain the questions.

The following times would work:

Mon, August 13, between 10 a.m. and 12 noon

Wed, August 15, after 1:30 p.m.

Do any of these work for you?

Thanks.

Mary

From: Dunkins, Robin [<mailto:Dunkins.Robin@epa.gov>]

Sent: Wednesday, August 01, 2018 5:41 PM

To: Mary Sullivan Douglas; Sheppard, Andrew; Costa, Allison

Cc: Miller, Scott (DEQ)

Subject: RE: Follow-up -- MSW Landfills Call with EPA - 7/11/18

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From: McCann, Gina (DEQ)

Sent: Tuesday, July 24, 2018 9:20 AM

To: Brothers, Monica (DEQ) <BrothersM@michigan.gov>; Brunner, Julie (DEQ) <BRUNNERJ1@michigan.gov>; Deskins, Matthew (DEQ) <DESKINSM@michigan.gov>; Dickman, Rob (DEQ) <DICKMANR@michigan.gov>; Durham, Zachary (DEQ) <DurhamZ@michigan.gov>; Joseph, Robert (DEQ) <JosephR4@michigan.gov>; Kavanaugh Vetort, Diane (DEQ) <KAVANAUGHHD@michigan.gov>; Konanahalli, Iranna (DEQ) <KONANAHALLII@michigan.gov>; Lamb, Jonathan (DEQ) <LAMBJ1@michigan.gov>; Morgan, Dave (DEQ) <MORGAND2@michigan.gov>; Scanlan, Joseph

(DEQ) <ScanlanJ@michigan.gov>; Zimmerman, Jill (DEQ) <ZimmermanJ3@michigan.gov>

Cc: Miller, Scott (DEQ) <MILLERS@michigan.gov>

Subject: FW: Follow-up -- MSW Landfills Call with EPA - 7/11/18

Hey All,

I haven't had a chance to read it all, but Erica pointed this out.

Check out the QA responses from EPA, from the first link below...

Under the NSPS program, a MSW landfill can only be subject to one NSPS; Once a modified MSW landfill becomes subject to Subpart XXX that MSW landfill is no longer subject to Subpart WWW or EG.

Gina

From: air_toxics@lists.4cleanair.org <air_toxics@lists.4cleanair.org> **On Behalf Of** Mary Sullivan Douglas

Sent: Monday, July 23, 2018 4:30 PM

To: air_toxics@lists.4cleanair.org

Subject: Follow-up -- MSW Landfills Call with EPA - 7/11/18

TO: NACAA AIR TOXICS COMMITTEE

On July 11, 2018, the NACAA Air Toxics Committee had a call with EPA staff to discuss the Risk and Technology Review for the Municipal Solid Waste Landfills NESHAP, as well as the reconsideration of the NSPS and Emission Guidelines for this source category that were amended in 2016 (see email thread below to refresh your memories). In follow-up to the call, Dan Brinsko (New York) provided the following additional information:

From: Brinsko, Dan (DEC) [<mailto:dan.brinsko@dec.ny.gov>]

Sent: Monday, July 16, 2018 11:53 AM

To: Mary Sullivan Douglas

Subject: NACAA/EPA MSW Landfill Call

Hi Mary,

As per the NACAA/EPA Landfill call we wanted to share the response we (i.e., Chris LaLone NYSDEC) got recently from EPA R-2 (consulting with HQ) for guidance on applicability with NSPS Subparts WWW, XXX and NESHAP AAAA. Find ~~attached~~ [linked below] three documents starting with the main document 'Landfill applicability QA.pdf' which summarizes the questions and EPA's responses. We hope this helps and leads to states finally obtaining some written guidance from EPA on this matter...

http://www.4cleanair.org/sites/default/files/Documents/Landfill_applicability_QA.pdf

http://www.4cleanair.org/sites/default/files/Documents/Subpart_XXX_Clarification_of_Compliance_Date_Email.pdf

<http://www.4cleanair.org/sites/default/files/Documents/BartonLoguidice.pdf>

Thanks,

Dan Brinsko, P.E.

Professional Engineer 1

Division of Air Resources
NYS Department of Environmental Conservation
625 Broadway, Albany NY 12233-3254
518-402-8403

Message

From: Morrison, Matthew W. [matthew.morrison@pillsburylaw.com]
Sent: 4/10/2019 9:17:36 PM
To: Tsirigotis, Peter [Tsirigotis.Peter@epa.gov]
CC: Wehrum, Bill [Wehrum.Bill@epa.gov]; Lassiter, Penny [Lassiter.Penny@epa.gov]; Dunkins, Robin [Dunkins.Robin@epa.gov]; Sheppard, Andrew [sheppard.andrew@epa.gov]; Carol McCabe [CMcCabe@mankogold.com]; Ball, Christopher [cball2@wm.com]; Amy Banister [abaniste@wm.com]; nwuestenberg@republicservices.com; McGuffey, Carroll Wade [mack.mcguffey@troutman.com]; Jesse Maxwell [jmaxwell@swana.org]; Anne Germain - NSWMA (agermain@wasterecycling.org) [agermain@wasterecycling.org]; Kevin Kraushaar [kkraushaar@wasterecycling.org]; Jim Riley [jriley@wasterecycling.org]; Jensen, Michael [mjensen1@wm.com]
Subject: Requests for Solicitation of Comments and for Compliance Guidance Regarding Landfill Emissions Regulations
Attachments: Letter to Tsirigotis re Comment Requests for RTR 4816-5885-0707 v.6.pdf; Letter to Tsirigotis re Compliance Guidance 4833-9654-9523 v.3.pdf

Peter,

On behalf of the Solid Waste Working Group, I'm transmitting two time-sensitive requests that pertain to EPA's regulations governing landfill emissions. The first request asks EPA to solicit comment in the upcoming RTR proposal on two issues: (1) the circumstances under which it would be appropriate for EPA to allow landfills to use surface actual monitoring data in lieu of modeling to determine when a gas collection and control system (GCCS) has to be installed and operated; and (2) the circumstances under which it would be appropriate for EPA to allow intermittent operation of a GCCS based on declining production of gases in closed landfill areas.

The second request seeks Agency guidance to clarify affected sources' compliance obligations under the Agency's overlapping authorities in the NSPS and NESHAP rules.

We would be happy to speak with you and the rest of the OAQPS team at your earliest convenience to discuss these requests in greater detail.

Thanks in advance for your consideration of our requests.

Best regards,

Matt

Matthew W. Morrison | Partner
Pillsbury Winthrop Shaw Pittman LLP
1200 Seventeenth Street NW | Washington, DC 20036-3006
t +1.202.663.8036 | f +1.202.663.8007 | m +1.571.253.3335
matthew.morrison@pillsburylaw.com | website bio

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NASHVILLE NEW YORK NORTHERN VIRGINIA PALM BEACH SACRAMENTO
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Message

From: Dunkins, Robin [Dunkins.Robin@epa.gov]
Sent: 3/22/2019 8:48:52 PM
To: Costa, Allison [Costa.Allison@epa.gov]
CC: Sheppard, Andrew [sheppard.andrew@epa.gov]
Subject: FW: Agenda for Monthly Status Call re Landfill Emissions Regulations
Attachments: NSPS Letter to EPA_January 2019.pdf; Declining Gas Production_1 28 19.docx; Letter to OAR and OECA re Landfill Emissions Regulations 4843-5078-5928 v.4.pdf

Robin Dunkins, Group Leader
Natural Resources Group
OAR/OAQPS/SPPD Mail Code: E143-03
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711
919-541-5335
dunkins.robins@epa.gov

From: Morrison, Matthew W. <matthew.morrison@pillsburylaw.com>
Sent: Friday, March 22, 2019 4:29 PM
To: Dunkins, Robin <Dunkins.Robin@epa.gov>
Cc: Sheppard, Andrew <sheppard.andrew@epa.gov>; Lassiter, Penny <Lassiter.Penny@epa.gov>; Tsirigotis, Peter <Tsirigotis.Peter@epa.gov>; Kelly, Kerry (KKelly5@wm.com) <KKelly5@wm.com>; Ball, Christopher <cball2@wm.com>; Banister, Amy <ABaniste@wm.com>; Carol McCabe (CMcCabe@mankogold.com) (CMcCabe@mankogold.com) <CMcCabe@mankogold.com>; Niki Wuestenberg <niki.wuestenberg@republicservices.com>; McGuffey, Carroll Wade <mack.mcguffey@troutman.com>; Fried, Gregory <Fried.Gregory@epa.gov>
Subject: Agenda for Monthly Status Call re Landfill Emissions Regulations

Hi Robin,

Here is a proposed agenda for our call next monthly gathering on Thursday, March 28th, at 9:30. Please let me know if you have any other issues you'd like to cover.

Although I didn't include Penny, Peter, and Greg on the original calendar invite, I'm copying them here in the hopes they can join us.

Have a great weekend,

Matt

Proposed Agenda

1. Status of RTR process
2. Evaluation of reconsideration issues (see attached January 2019 letter)
3. Declining gas flow framework (see attached); inclusion of framework in NSPS and NESHAP rather than subsequent rule

4. Response to compliance assurance options in May (see attached letter to OAR and OECA)
5. State Design Plan Approvals
6. Status of ACE/Subpart Ba rulemaking

Matthew W. Morrison | Partner

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matthew.morrison@pillsburylaw.com | website bio

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Message

From: Morrison, Matthew W. [matthew.morrison@pillsburylaw.com]
Sent: 3/22/2019 8:29:24 PM
To: Dunkins, Robin [Dunkins.Robin@epa.gov]
CC: Sheppard, Andrew [sheppard.andrew@epa.gov]; Lassiter, Penny [Lassiter.Penny@epa.gov]; Tsirigotis, Peter [Tsirigotis.Peter@epa.gov]; Kelly, Kerry (KKelly5@wm.com) [KKelly5@wm.com]; Ball, Christopher [cball2@wm.com]; Banister, Amy [ABaniste@wm.com]; Carol McCabe (CMcCabe@mankogold.com) (CMcCabe@mankogold.com) [CMcCabe@mankogold.com]; Niki Wuestenberg [niki.wuestenberg@republicservices.com]; McGuffey, Carroll Wade [mack.mcguffey@troutman.com]; Fried, Gregory [Fried.Gregory@epa.gov]
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Attachments: NSPS Letter to EPA_January 2019.pdf; Declining Gas Production_1 28 19.docx; Letter to OAR and OECA re Landfill Emissions Regulations 4843-5078-5928 v.4.pdf

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Matt

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Message

From: McNeal, Dave [Mcneal.Dave@epa.gov]
Sent: 3/26/2019 5:31:02 PM
To: Sheppard, Andrew [sheppard.andrew@epa.gov]
CC: Dressler, Jason [Dressler.Jason@epa.gov]; Lusky, Katy [Lusky.Kathleen@epa.gov]; Russo, Todd [Russo.Todd@epa.gov]; Mitchell, Ken [Mitchell.Ken@epa.gov]; Dubose, Dick [DuBose.Dick@epa.gov]; Davis, Amber [Davis.Amber@epa.gov]; Bloeth, Mark [Bloeth.Mark@epa.gov]
Subject: RE: SC Pre-draft review

Andrew,

We met internally to discuss South Carolina's pre-draft today and concluded that there is not a problem with the approach they plan to use for incorporating Subpart Cf by reference. The previous version of their rule only said that Subpart Cf was incorporated by reference. If they had not updated their rule, that language would be a problem because many of the provisions in the Subpart Cf place an obligation on the States, rather than on the owners/operators of affected facilities.

South Carolina has revised the wording in its pre-draft rule to incorporate the requirements in each section of Subpart Cf (emission guidelines, test methods, etc.) by reference, and we determined that this approach is acceptable. Therefore, the only comment we anticipate making on the pre-draft is to remind SC that the plan, which is due by August 29, will need to include all the required elements specified in Part 60, Subpart B (i.e., demonstration of legal authority, listing of affected sources, etc.) in order to be complete.

David McNeal
EPA Region 4
404-562-9102

From: Sheppard, Andrew
Sent: Monday, March 25, 2019 10:44 AM
To: McNeal, Dave <Mcneal.Dave@epa.gov>
Cc: Dressler, Jason <Dressler.Jason@epa.gov>; Lusky, Katy <Lusky.Kathleen@epa.gov>; Russo, Todd <Russo.Todd@epa.gov>; Mitchell, Ken <Mitchell.Ken@epa.gov>; Dubose, Dick <DuBose.Dick@epa.gov>; Davis, Amber <Davis.Amber@epa.gov>
Subject: RE: SC Pre-draft review

Dave,

Thanks for informing us. We've been dealing with R3, 6 and 9 on their state plans in regards to the on going litigation with California over the failure to approve/disapprove state plans and federal plan. We've got a few IBRs from Arizona and New Mexico, but your comment that doing an IBR on Subpart Cf is unacceptable is interesting. Should SC DHEC be incorporating XXX for all landfills instead of Cf, since XXX applies to landfills rather than states in your opinion? I might loop in the other regions on an email chain to discuss your thoughts on SC DHEC's IBR vs Arizona or others to make sure everyone is on the same page.

Thanks,

Andy Sheppard
U.S. EPA, Sector Policies and Programs Division, OAQPS
Natural Resources Group
(919)541-4161

From: McNeal, Dave
Sent: Friday, March 22, 2019 1:29 PM
To: Sheppard, Andrew <sheppard.andrew@epa.gov>
Cc: Dressler, Jason <Dressler.Jason@epa.gov>; Lusky, Katy <Lusky.Kathleen@epa.gov>; Russo, Todd <Russo.Todd@epa.gov>; Mitchell, Ken <Mitchell.Ken@epa.gov>; Dubose, Dick <DuBose.Dick@epa.gov>; Davis, Amber <Davis.Amber@epa.gov>
Subject: FW: SC Pre-draft review

Andrew,

I am forwarding the first state plan for existing landfills (NSPS Subpart Cf) that the Region 4 has received following the stay that EPA issued in May 2017. I should have sent this to you sooner, but the last time we received any state submittals was early 2017, and I need to get back up to speed again.

I have reviewed the package from the South Carolina DHEC, and I plan to draft written comments by COB Monday. Also, we are going to have an internal meeting on Tuesday morning to discuss the State's submittal. At the present time, I think my most substantive comment will be the DHEC's proposal to incorporate Subpart Cf by reference is not acceptable because the rule imposes requirements on State agencies, rather than owners and operators of affected facilities.

I will forward a copy of my draft comments when they are ready, and if you have any input regarding the State plan, let me know.

David McNeal
EPA Region 4
404-562-9102

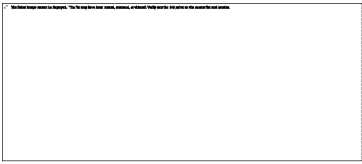
From: Wall, Mary Peyton <wallmp@dhec.sc.gov>
Sent: Thursday, March 07, 2019 11:48 AM
To: Dressler, Jason <Dressler.Jason@epa.gov>; Lusky, Katy <Lusky.Kathleen@epa.gov>; Bloeth, Mark <Bloeth.Mark@epa.gov>; McNeal, Dave <Mcneal.Dave@epa.gov>
Cc: Lofton, Anthony <loftonat@dhec.sc.gov>; Adams, Evan <adams.evan@epa.gov>
Subject: SC Pre-draft review

All-

Please see the attached draft proposed regulation (our 2018 End of Year Revisions) for your pre-draft review, including the revised language for emission guidelines for 40 CFR Subparts Cf and DDDD. I realize the shutdown has put everyone a bit behind. The Landfill State Plan is due August 29, so we are fast-tracking our revisions this year to aid us with that submittal. We will be in front of our Board on May 9, shortening the review time available for pre-draft. My apologies on not being able to extend the review time. If possible, please have comments back to Tony and I by March 29. Once we get Board approval, we will put the proposed regulation on public notice from May 24 until June 24. We will send a pre-hearing package to you for your review during that time. Let us know if you have any questions.

Thanks,
Mary Peyton

Mary Peyton D. Wall
Section Manager, Air Regulation and SIP Management
S.C. Dept. of Health & Environmental Control
Office: (803) 898-4064
Fax: (803) 898-4117
Connect: www.scdhec.gov [Facebook](#) [Twitter](#)



Message

From: Banister, Amy [ABaniste@wm.com]
Sent: 1/28/2019 5:47:24 PM
To: Sheppard, Andrew [sheppard.andrew@epa.gov]
CC: nwuestenberg@republicservices.com; Anne Germain - NSWMA (agermain@wasterecycling.org)
[agermain@wasterecycling.org]; Jesse Maxwell (jmaxwell@swana.org) [jmaxwell@swana.org]; Kelly, Kerry
[KKelly5@wm.com]; Stutz, Matt [mstutz@wcgrp.com]
Subject: NSPS/NESHAPs declining gas production
Attachments: Declining Gas Production_1 28 19.docx

Good afternoon, Andy – welcome back! I hope you are doing ok.

Last time we spoke we offered to provide more information regarding a process for addressing declining gas production in areas of a landfill. I have attached our thoughts on this issue for your consideration; it responds to concerns we raised in the reconsideration petition regarding closed areas. The process leverages historical agency determinations and terminology already used in the rules.

I will reach out in a few days to see if you have any questions. Please take care. Amy

Amy Van Kolken Banister
Senior Director of Air Programs, Environmental Management Group
abaniste@wm.com

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PROCESS FOR ADDRESSING DECLINING LANDFILL GAS (LFG) PRODUCTION

Once an area of an MSW landfill is closed to waste disposal, landfill gas (LFG) production will decrease over time to a point when LFG quality and/or quantity fall below levels able to sustain the continuous operations of active gas collection and control system (GCCS) components. As such, to maintain proper and continuous operation of the GCCS as required by the New Source Performance Standards/Emission Guidelines (NSPS/EG) Rules, a site may need to implement one or more additional work practices to maintain adequate gas management in a closed area. Using Subpart XXX as the citing reference, the current NSPS/EG rules only address the final stage of LFG production decline via the Equipment Removal provisions in 40 C.F.R. §60.762(b)(2)(v) (for when the entire landfill is closed) or through the allowance in 40 C.F.R. §60.769(a)((3)(ii) for exempting an area from GCCS operation if it can be demonstrated that an area contributes less than 1% of the landfill's estimated NMOC emissions.

These two allowances for equipment removal or the 1% determination do not provide landfills with appropriate and effective options for handling declining LFG production in closed areas of a landfill. The following proposed process for handling declining flows is based on site-specific determinations previously approved by EPA at NSPS/EG subject facilities. Based on our field experience, we have identified provisions within these determinations that are workable solutions for addressing declining LFG production that support Best System of Emission Reduction (BSER) for proper operation of the GCCS. We believe that these procedures may be incorporated into the NSPS/EG as operational standards; for example, through 40 C.F.R. §60.763.

The Solid Waste Working Group¹ proposes the following practices for proper operation of the GCCS to address declining gas flow production:

1. Decommissioning of individual or series of gas collection components under vacuum (e.g., vertical LFG wells, leachate cleanout risers and horizontal LFG trenches);
2. Capping/removal (e.g., abandonment) of individual or series of gas extraction components;
3. Stepped-down or intermittent operation of the active gas control system or control system components (e.g., enclosed flare, utility/open flare, and other combustion equipment)

Proposed procedures are presented in the following subsections:

¹ The Solid Waste Working Group comprises Waste Management, Republic Services, Solid Waste Association of North America (SWANA) and National Waste & Recycling Association (NW&RA).

1. Decommissioning of individual or series of LFG extraction components under vacuum

As LFG quality declines, air infiltration can cause an increase in the oxygen concentration (above 5%) even when minimal vacuum is applied. In this scenario the proper response is to turn off the LFG collection component to prevent air intrusion (i.e., “decommission” the well). However, this may cause zero or positive pressure in the collector. The following procedure should be followed to decommission a well:

1. Complete/document inspection for well integrity to confirm well components are functioning properly.
2. Conduct monthly monitoring of the well per 40 C.F.R. §60.765. If gas quality readings indicate a collector is low-producing (methane quality less than 30% and oxygen above 5%) then close the collection valve.
3. Monthly monitoring required by 40 C.F.R. §60.765 will be conducted for wells that have been decommissioned, but positive pressure or elevated oxygen concentrations will not be considered exceedances of the operating limits in 40 C.F.R. §60.763.
4. If monthly monitoring indicates that pressure has built up in the well, and the oxygen concentration exceeds 5% and methane is less than 30%, then the well will be opened to relieve the pressure. After a minimum of one hour with LFG flowing to a control device, monitor the gas collector for pressure, temperature and oxygen as well as methane concentration. If gas quality readings indicate a collector is low-producing (methane quality less than 30%, and oxygen above 5%) then re-close the collection valve. If zero or positive pressure is observed, it is not considered an exceedance of the NSPS/EG operating standard for a decommissioned well.
5. Continue with monthly monitoring and evaluation of decommissioned well per steps 2-4. If gas quality readings continue to indicate a collector is low-producing (methane quality less than 30%, positive pressure, and oxygen above 5%) then re-close the collection valve after the readings are completed. The recorded positive pressure is not considered an exceedance of the NSPS/EG operating standard for a decommissioned well.

If the monthly monitoring indicates gas quality has improved so that methane is above 20% while under negative pressure, and oxygen is less than 5%, then the gas extraction

component vacuum valve will remain open until readings indicate gas quality has declined again (oxygen above 5%, methane below 20% and positive pressure).

6. Continue to conduct routine surface emissions monitoring, including at decommissioned wells. Follow standard remediation steps including evaluating need to re-start collector(s) if exceedances of the 500 ppmv methane surface concentration threshold are detected. Collectors that are decommissioned will remain decommissioned at least 5 calendar days prior to and for the entire surface emissions monitoring event.
7. Record which collectors are decommissioned, date collector was decommissioned and number of days each collector was decommissioned due to low gas production rates that prevent continuous extraction. Include records in NSPS/EG compliance report.

Following this procedure will increase gas control efficiency by preventing air infiltration when collectors have low gas quality and allowing the owner/operator to quickly resume gas collection if/when gas quality and production returns.

2. Capping/Removal of Individual or Series of Gas Extraction Components

Individual or series of LFG collectors may be capped/removed from the gas extraction system if they are unable to sustain methane concentrations above 30% and oxygen below 5% while under vacuum, indicating insufficient gas production.

To consider capping/removing individual or series of gas collectors from the gas extraction system, the gas collector(s) must have been decommissioned for at least a 12-month period and surface monitoring results indicated no exceedances of the 500ppmv threshold during this 12-month period at the decommissioned collector(s).

To cap/remove collector(s), the owner/operator will implement the following procedures:

1. Gas collector(s) must have been decommissioned for at least a 12-month period (methane quality less than 30% and oxygen above 5% and surface monitoring results at the decommissioned collector(s) indicated no exceedances of the 500ppmv threshold during this 12-month period.

2. Conduct routine surface emissions monitoring, including at capped/removed collector(s). Follow standard remediation steps including evaluating need to re-assemble collector(s), convert to a passive collector(s) and/or install new collector(s) if exceedances of the 500 ppmv methane surface concentration threshold are detected. Collectors that are capped will remain capped at least 5 calendar days prior to and during the surface emissions monitoring event. Collectors will not be restarted for the surface emissions monitoring event if they were capped 5 or more calendar days prior to the quarterly monitoring event.
3. The as-built drawings will be updated to show which collector(s) have been removed from the system. The collector(s) capped/removed from the gas collection system will be documented in the NSPS/EG compliance report.

3. Stepped-down or Intermittent Operation of Active Gas Control System

As LFG production declines, it may be necessary to convert the operation of the active gas control system to an intermittent operation. To maintain continuous control device operation while the facility is experiencing declining LFG production, the site may need to utilize supplemental fuel (propane or natural gas) once LFG quality/Btu declines below the level at which continuous control system operations can be maintained on LFG alone. Once a landfill is at this stage of operation, the site typically relies on unassisted flare technology for its primary control. Based on 40 C.F.R. §60.18, unassisted flares must operate with a BTU content of 200 BTU/scf which is equivalent to landfill gas with approximately 20% methane. However, many LFG flare manufacturers design the LFG flare for a minimum heat content of 300 Btu/scf, or 30% methane.

As an indicator of when a site may need to operate intermittently, if the operation of the control system falls below 30% methane or manufacturer's design parameters for at least two successive months, the site may initiate intermittent operation of the gas control system.

Intermittent operation of the gas control system requires that flare controls be programmed to auto start and stop with a programmable timer. When switching to timed operation, the site will need to determine the appropriate run cycle for the flare based on field conditions, available LFG and blower/flare design parameters; but would continue to be required to run at minimum once every 5-days. The operational period may be periodically revised as needed to accommodate changes in the gas quality and quantity. Per the rules, the site will conduct well monitoring and surface emissions monitoring, even during periods of

intermittent operation. The site will use these results to assess changes in the operational period taking operational requirements such as minimizing off site migration and odor into account.

The NSPS/EG report will include whether the site operated the control system on an intermittent basis, date and duration (hours) it operated in intermittent mode, and methane readings to justify the decision to operate intermittently.

Message

From: Paulson, Christine [christine.paulson@dnr.iowa.gov]
Sent: 11/26/2018 5:10:54 PM
To: Sheppard, Andrew [sheppard.andrew@epa.gov]
CC: Mary Douglas [mdouglas@4cleanair.org]
Subject: Re: Follow-up:Question about MSW Landfill NSPS and Emission Guidelines
Attachments: ATT00001.txt; ATT00002.txt

Thanks, Andy. Much appreciated!

Christine



Christine Paulson | CPM, Env. Specialist Sr. - Air Quality Planning
Iowa Department of Natural Resources
P 515-725-9510 | Christine.Paulson@dnr.iowa.gov
Wallace State Office Building | 502 E. 9th St. | Des Moines IA 50319
www.iowadnr.gov

On Mon, Nov 26, 2018 at 10:53 AM Sheppard, Andrew <sheppard.andrew@epa.gov> wrote:

Hi Christine,

Yes, there the litigation is still on-going with the parties you mentioned, as well as litigation from various states dealing with federal plan and state plans implementing the 2016 EG (Subpart Cf).

Thanks,

Andy Sheppard

U.S. EPA, Sector Policies and Programs Division, OAQPS

Natural Resources Group

(919)541-4161

From: Paulson, Christine <christine.paulson@dnr.iowa.gov>
Sent: Monday, November 26, 2018 11:50 AM
To: Sheppard, Andrew <sheppard.andrew@epa.gov>
Cc: Mary Douglas <mdouglas@4cleanair.org>
Subject: Re: Follow-up: Question about MSW Landfill NSPS and Emission Guidelines

Andy,

Just checking back after the Thanksgiving holiday to see if you might have any additional follow-up on litigation regarding the MSW Landfill NSPS and Emission Guidelines (see my original email from 11/19, attached).

Thanks,

Christine



Christine Paulson | CPM, Env. Specialist Sr. - Air Quality Planning
Iowa Department of Natural Resources
P 515-725-9510 | Christine.Paulson@dnr.iowa.gov
Wallace State Office Building | 502 E. 9th St. | Des Moines IA 50319
www.iowadnr.gov

On Mon, Nov 19, 2018 at 10:58 AM Paulson, Christine <christine.paulson@dnr.iowa.gov> wrote:

Andy,

Good morning. I am the NACAA member that inquired about the status of the MSW Landfill NSPS and Emission Guidelines (EGs).

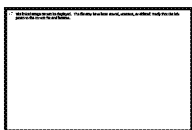
Thank you very much for the response to Mary indicating that EPA does not plan any additional proposals on these standards at this time.

I asked about the litigation because it is my understanding that several parties, including solid waste associations and environmental groups, may still have outstanding petitions with the U.S. Court of Appeals for the D.C Circuit.

If this is not, or is no longer the case, please let me know.

Best regards,

Christine



Christine Paulson | CPM, Env. Specialist Sr. - Air
Quality Planning
Iowa Department of Natural Resources
P 515-725-9510 | Christine.Paulson@dnr.iowa.gov
Wallace State Office Building | 502 E. 9th St. | Des
Moines IA 50319
www.iowadnr.gov

Message

From: Boyce, Kenneth [boyce.kenneth@epa.gov]
Sent: 9/28/2018 4:11:37 PM
To: Bartley, Richard [Bartley.Richard@epa.gov]
Subject: RE: Request to review State plans
Attachments: NMED MSW Landfill Rule 20.002.0064.pdf.docx; New Mexico State Plan Sections 1-4.pdf

Hi Rick,

I hope the attachments are helpful. Please contact me if you need additional info.

From: Bartley, Richard
Sent: Friday, September 28, 2018 10:49 AM
To: Boyce, Kenneth <boyce.kenneth@epa.gov>
Subject: Re: Request to review State plans

Hi Ken -

I'm teleworking today and Monday, and my New Mexico submittals are back in the office. However, if you can forward me copies of the submittals or point me to a SharePoint site that I can have access to, I will try to get you my thoughts today.

Rick

From: Boyce, Kenneth
Sent: Friday, September 28, 2018 10:23:35 AM
To: Bartley, Richard
Subject: FW: Request to review State plans

Good morning Rick,

First, I'm surprised that you were not included on the email list. But, with that said, in my opinion the NM Mexico plan meets the completeness criteria. Please call me, 8172357670 and let me know if you agree or not. Thanks Rick.

Ex. 5 - Attorney Client

Ex. 5 - Attorney Client

Message

From: Boyce, Kenneth [boyce.kenneth@epa.gov]
Sent: 5/15/2019 12:04:01 AM
To: Stanton, MaryA [Stanton.Marya@epa.gov]
CC: Bartley, Richard [Bartley.Richard@epa.gov]
Subject: RE: States Plans for MSW Landfills Subpart Cf
Attachments: NMED-AEHD FRN 5-14-2019 Briefing Sheet -Exec Summary.docx

Hi Mary,

The attached briefing sheet is attached for your review/comment.

From: Stanton, MaryA
Sent: Tuesday, May 14, 2019 4:32 PM
To: Boyce, Kenneth <boyce.kenneth@epa.gov>
Subject: RE: States Plans for MSW Landfills Subpart Cf

Ken,

The info for Wren's retreat in NM was due to me and Guy today. Please send to me before you leave today. Thanks

Mary A. Stanton, Chief
Infrastructure and Ozone Section (6ARSI)
EPA Region 6
214-665-8377

From: Boyce, Kenneth
Sent: Thursday, May 09, 2019 11:34 AM
To: Stanton, MaryA <Stanton.Marya@epa.gov>; Bartley, Richard <Bartley.Richard@epa.gov>
Subject: FW: States Plans for MSW Landfills Subpart Cf

Hello Mary,

I will add this info to the Briefing sheet for Wren.

From: Sheppard, Andrew
Sent: Thursday, May 9, 2019 11:14 AM
To: Bird, Patrick <Bird.Patrick@epa.gov>; Bellizzi, Carol <Bellizzi.Carol@epa.gov>; Gordon, Michael <Gordon.Mike@epa.gov>; McNeal, Dave <Mcneal.Dave@epa.gov>; Sieffert, Margaret <Sieffert.Margaret@epa.gov>; Boyce, Kenneth <boyce.kenneth@epa.gov>; Casburn, Tracey <casburn.tracey@epa.gov>; Fulton, Abby <Fulton.Abbey@epa.gov>; Buss, Jeffrey <Buss.Jeffrey@epa.gov>; BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>; Glass, Geoffrey <GLASS.GEOFFREY@EPA.GOV>
Cc: Dunkins, Robin <Dunkins.Robin@epa.gov>
Subject: RE: States Plans for MSW Landfills Subpart Cf

Hello all,

We received a decision in this lawsuit on Monday, summary attached. The judge ruled that the plaintiffs have standing. He ordered for us to have 4 months to approve/disapprove already submitted state plans within 4 months (by Sept. 6, 2019) and promulgate a federal plan in 6 months (by Nov. 6, 2019). The court agreed with EPA that it has no jurisdiction over future state plan submissions.

Additionally, we do plan to finalize the Adopting Subpart Ba requirements action for Subpart Cf that was proposed last year. Once final (targeting mid-June), this will move the state plan due date out to August of this year and adjust our review time to 18 months (up to 6 months for a completeness check, then 12 months to review once deemed complete). A federal plan would then be due 2 years after individual states fails to submit an approvable plan. Once finalized, EPA will return to the judge with the new dates from this action and ask him to review his decision.

Once any new information becomes available regarding any of this, I will pass it along to you all.

Thanks,

Andy Sheppard
U.S. EPA, Sector Policies and Programs Division, OAQPS
Natural Resources Group
(919)541-4161

From: Sheppard, Andrew
Sent: Monday, February 04, 2019 3:55 PM
To: Bird, Patrick <Bird.Patrick@epa.gov>; Bellizzi, Carol <Bellizzi.Carol@epa.gov>; Gordon, Michael <Gordon.Mike@epa.gov>; McNeal, Dave <Mcneal.Dave@epa.gov>; Frank, Nathan <frank.nathan@epa.gov>; Boyce, Kenneth <boyce.kenneth@epa.gov>; Casburn, Tracey <casburn.tracey@epa.gov>; Fulton, Abby <Fulton.Abbey@epa.gov>; Buss, Jeffrey <Buss.Jeffrey@epa.gov>; BECKHAM, LISA <BECKHAM.LISA@EPA.GOV>; Narvaez, Madonna <Narvaez.Madonna@epa.gov>
Cc: Palmer, Karen <Palmer.Karen@epa.gov>
Subject: States Plans for MSW Landfills Subpart Cf
Importance: High

Hello all,

In the Cal vs EPA case regarding failure to review state plans and implement a federal plan for landfills, California has asked the court that:

- EPA Should Be Ordered to Review Existing State Plans Within Thirty Days
- EPA Should Be Ordered to Promulgate a Federal Plan Within Five Months
- EPA Should Be Ordered to Respond to Any Future State Plans Within Sixty Days of Submission
- EPA Should Be Ordered to File Status Reports Every Sixty Days

We wanted to get a sense of what state plans have been sent in officially. We know about California, New Mexico, Arizona, West Virginia and Delaware. If you have any other submitted state plans, could you please forward those to Karen (cc'd) and I along with dates that they were submitted as well as any correspondence with the states and if it's a full blown plan or just an IBR. Additionally, we wanted to gauge from each region what kind of timeline would be manageable to review and approve these plans. We want to use this information to respond to California in this case with a more do-able timeframe. We have heard from a few regions that 4 months or so would be more realistic but that even more time would be best due to current workload. If you've already sent us this information these past couple of weeks, thanks so much! Also, if you aren't the correct contact for the region please forward to the correct person.

Please let us know in the next day or so as we have to respond to the court by February 19th.

Thanks so much!

Andy Sheppard
U.S. EPA, Sector Policies and Programs Division, OAQPS
Natural Resources Group

(919)541-4161

Message

From: Stanton, MaryA [Stanton.Marya@epa.gov]
Sent: 5/10/2019 3:49:10 PM
To: Bartley, Richard [Bartley.Richard@epa.gov]
Subject: FW: NMED/AEHD MSW Landfill Docs
Attachments: NM-ALB MSW Landfill direct final.docx; Plan_Review_schedule.docx

Mary A. Stanton, Chief
Infrastructure and Ozone Section (6ARSI)
EPA Region 6
214-665-8377

From: Boyce, Kenneth
Sent: Tuesday, April 30, 2019 6:10 PM
To: Stanton, MaryA <Stanton.Marya@epa.gov>
Subject: NMED/AEHD MSW Landfill Docs

Hi Mary,

Per your request, the attached draft DF FRN and the schedule is available for your review.

Kenneth (Ken) Boyce
Ozone and Infrastructure Section (6MM-MB)
EPA Region 6
214-665-7259

Message

From: Boyce, Kenneth [boyce.kenneth@epa.gov]
Sent: 2/15/2019 3:21:06 PM
To: Stanton, MaryA [Stanton.Marya@epa.gov]
CC: Bartley, Richard [Bartley.Richard@epa.gov]
Subject: FW: SPPD Declaration
Attachments: MSJ Reply - Draft Lassiter Declaration v.2 - 2.14.2019 .docx

Hi Mary,

The attachment provides information regarding the MSW Landfill rule status and state plan processing. Again, I am happy that I did not start the SIP clock during the "Stay" of the federal rule. Also, I think there's still a possibility that the emission rule(s) might be changed. If so, R6 won't have to require our states to provide new plans. They will simply have to make just pen/ink, page changes or dates to our in-house plans.

From: Sheppard, Andrew
Sent: Thursday, February 14, 2019 9:39 AM
To: Gordon, Michael <Gordon.Mike@epa.gov>; Boyce, Kenneth <boyce.kenneth@epa.gov>
Subject: RE: SPPD Declaration

Some updates, as this document keeps evolving.

We have to turn this declaration in to the court on Feb 19, and the hearing is set for mid-April, but once he receives our declaration he can make a decision at any time.

I'll get back to you on this, but I do personally agree that getting started now would be best (I'm not officially saying get started though).

There was a proposed rulemaking that was going to kick out the timelines, and we are looking to finalize that, but likely not before the court makes a decision on this.

Andy Sheppard
U.S. EPA, Sector Policies and Programs Division, OAQPS
Natural Resources Group
(919)541-4161

From: Gordon, Michael
Sent: Wednesday, February 13, 2019 3:47 PM
To: Sheppard, Andrew <sheppard.andrew@epa.gov>; Boyce, Kenneth <boyce.kenneth@epa.gov>
Subject: RE: SPPD Declaration

Thanks, Andy. I will take a look and get you feedback. Any idea of what kind of schedule we are on to hear a decision from the court? If we are going to get a court decision or enter in to some sort of agreement and we have 4 months to act on a plan from the date of that decision or agreement, I'd like to get started on them ASAP so that I can hit the ground running. 4 months is not a lot of time in the SIP/state plan world. It'd be helpful for me in prioritizing workload to know if we expected a decision next week vs sometime over the summer.

On a side note, wasn't there a rulemaking proposed that would amend the timelines we have to act on emissions guidelines promulgated under part 60? I think it might have been tied to the ACE rule and given us a full year.

Mike Gordon

Environmental Engineer
Office of Permits and State Programs
Air Protection Division
EPA Region III
1650 Arch Street
Philadelphia, PA 19103
(215)-814-2039
Gordon.Mike@epa.gov

From: Sheppard, Andrew
Sent: Wednesday, February 13, 2019 3:29 PM
To: Boyce, Kenneth <boyce.kenneth@epa.gov>; Gordon, Michael <Gordon.Mike@epa.gov>
Subject: SPPD Declaration

Ken and Mike,

See attached for our declaration on state plan approving and federal plan. There are a bunch of comments back and forth with our OGC and such, but this is a good idea of where we are headed for responding to the court. We are planning to say 4 months for state plan review, as that is what the statute gives us, but Region 9 has told us they cannot do reviews that quickly, due to their backlog, so we are saying 8 months for AZ and CA will take a year due to how complex it is. Since R3 and 6 are the only other regions with state plans at this time, I wanted you guys to take a look at this and share it with your management. Let me know if you have any questions or concerns.

Thanks,

Andy Sheppard
U.S. EPA, Sector Policies and Programs Division, OAQPS
Natural Resources Group
(919)541-4161

Message

From: Bellizzi, Carol [Bellizzi.Carol@epa.gov]
Sent: 9/17/2018 5:20:24 PM
To: Ruvo, Richard [Ruvo.Richard@epa.gov]
CC: Chan, Suilin [Chan.Suilin@epa.gov]; Ihlenburg, Erick [Ihlenburg.Erick@epa.gov]; Chiang, Johnny [Chiang.Johnny@epa.gov]
Subject: RE: Workgroup for MSW Landfills regs-----FW: Due 7/10: RSC Distribution: Tiering - June 2018 Tiering Approval Report

Rick,

Please request that I be added to the workgroup. I can prompt participation by others as topics come up, if that's an option for us.

As for DECA and ORC participation,

- Johnny is not participating for DECA; he didn't say that anyone else would for ACB.
- Erick was going to discuss with Liliana, but he was busy with a case last week and I haven't heard back yet.

Thanks.
Carol

From: Ruvo, Richard
Sent: Monday, September 10, 2018 10:59 AM
To: Chan, Suilin <Chan.Suilin@epa.gov>; Bellizzi, Carol <Bellizzi.Carol@epa.gov>
Subject: RE: Workgroup for MSW Landfills regs-----FW: Due 7/10: RSC Distribution: Tiering - June 2018 Tiering Approval Report

Neither am I.

Let me know if you hear back from DECA/ORC. If not, we can make our own inquiry to HQ.

From: Chan, Suilin
Sent: Friday, September 07, 2018 12:42 PM
To: Bellizzi, Carol <Bellizzi.Carol@epa.gov>
Cc: Ruvo, Richard <Ruvo.Richard@epa.gov>
Subject: RE: Workgroup for MSW Landfills regs-----FW: Due 7/10: RSC Distribution: Tiering - June 2018 Tiering Approval Report

No, I am not aware of such a workgroup invite.

From: Bellizzi, Carol
Sent: Friday, September 07, 2018 11:48 AM
To: Chan, Suilin <Chan.Suilin@epa.gov>
Cc: Ruvo, Richard <Ruvo.Richard@epa.gov>
Subject: Workgroup for MSW Landfills regs-----FW: Due 7/10: RSC Distribution: Tiering - June 2018 Tiering Approval Report

Suilin,

Do you know if APB or CASD was invited to participate in the MSW landfill regs workgroup (that has met twice thus far) for the NSPS and EG reconsideration and the RTR for the NESHAP?

I'd like to keep up with what's going on, if possible. I was on the previous workgroup, as were Johnny Chiang and various lawyers from ORC, most recently Erick Ihlenburg.

Thanks.
Carol

From: Bellizzi, Carol
Sent: Friday, September 07, 2018 11:14 AM
To: Chiang, Johnny <Chiang.Johnny@epa.gov>
Cc: Ihlenburg, Erick <Ihlenburg.Erick@epa.gov>
Subject: FW: Due 7/10: RSC Distribution: Tiering - June 2018 Tiering Approval Report

Hi, Johnny.

Did the call for workgroup members from R2 go to DECA only?

Thanks.
Carol

From: Bird, Patrick
Sent: Friday, September 07, 2018 10:46 AM
To: Bellizzi, Carol <Bellizzi.Carol@epa.gov>
Cc: Chiang, Johnny <Chiang.Johnny@epa.gov>; Ihlenburg, Erick <Ihlenburg.Erick@epa.gov>; Frank, Nathan <frank.nathan@epa.gov>
Subject: RE: Due 7/10: RSC Distribution: Tiering - June 2018 Tiering Approval Report

Hi Carol,

Nathan and I are on the workgroup, and yes, it is now active. We've had two meetings. There are two other regions participating, Region 3 (James Adamiec) and Region 9 (Brian Riedel and Steve Wall).

Pat

Patrick Bird
U.S. EPA - Region 1
5 Post Office Square, OEP05-2
Boston, MA 02109-3912
Phone: 617-918-1287
Fax: 617-918-0287
Email: bird.patrick@epa.gov

From: Bellizzi, Carol
Sent: Friday, September 07, 2018 10:41 AM
To: Frank, Nathan <frank.nathan@epa.gov>
Cc: Chiang, Johnny <Chiang.Johnny@epa.gov>; Ihlenburg, Erick <Ihlenburg.Erick@epa.gov>; Bird, Patrick <Bird.Patrick@epa.gov>
Subject: RE: Due 7/10: RSC Distribution: Tiering - June 2018 Tiering Approval Report

Hi, Nathan.

I was going through e-mails in the context of the new Lit Hold regarding the State Plans for Subpart Cf and saw your e-mail below. Sorry that I missed it in July. At this time, are you and Patrick representing the Regions on the (1) Residual

Risk assessment or RTR for the MSW Landfills NESHAP and also (2) the NSPS Subpart XXX and EG Subpart Cf reconsideration? Are those workgroups active now?

Thanks.
Carol

Carol Bellizzi
Permitting Section
Air Programs Branch
Clean Air and Sustainability Division
U.S. EPA Region 2
tel: 212-637-3712

From: Frank, Nathan
Sent: Wednesday, July 11, 2018 8:56 AM
To: Chiang, Johnny <Chiang.Johnny@epa.gov>; Bellizzi, Carol <Bellizzi.Carol@epa.gov>; Ihlenburg, Erick <Ihlenburg.Erick@epa.gov>; Gordon, Michael <Gordon.Mike@epa.gov>; Wall, Steve <Wall.Steve@epa.gov>; Willard, Erin <Willard.ErinM@epa.gov>; Bertram, Gary <Bertram.Gary@epa.gov>
Cc: Thorneloe, Susan <Thorneloe.Susan@epa.gov>; Durkee, Stanley <Durkee.Stan@epa.gov>; Bird, Patrick <Bird.Patrick@epa.gov>
Subject: FW: Due 7/10: RSC Distribution: Tiering - June 2018 Tiering Approval Report

Regional landfill regulation workgroup participants,

We know that OAR is currently working on two air landfill related rulemakings: 1) A residual risk review of NESHAP AAAA; and 2) a reconsideration of the NSPS and Emission Guidelines. According to the Tiering Report below, only Region 1 continues to be included on the workgroup list. Since all of you were previously involved in the development of NSPS XXX and the Emission Guidelines, I thought you might be interested in participating in this process as well.

I recommend you work through your internal regional processes if you are interested in being reinstated in these workgroups.

Thanks!

From: Maldonado, Mayra
Sent: Tuesday, July 10, 2018 3:02 PM
To: Frank, Nathan <frank.nathan@epa.gov>
Cc: Breneman, Sara <breneman.sara@epa.gov>
Subject: RE: Due 7/10: RSC Distribution: Tiering - June 2018 Tiering Approval Report

I'll make sure you get back on. Thanks.

From: Frank, Nathan
Sent: Thursday, July 05, 2018 9:51 AM
To: Maldonado, Mayra <maldonado.mayra@epa.gov>
Cc: Breneman, Sara <breneman.sara@epa.gov>
Subject: FW: Due 7/10: RSC Distribution: Tiering - June 2018 Tiering Approval Report

Hi Mayra,

I should be on the workgroup for both MSW Landfill regulations. Not sure how I was taken off.

Thnaks!

From: Marshall, Sarah

Sent: Thursday, July 05, 2018 8:34 AM

To: Dickens, Brian <dickens.brian@epa.gov>; Frank, Nathan <frank.nathan@epa.gov>

Subject: FW: Due 7/10: RSC Distribution: Tiering - June 2018 Tiering Approval Report

Sarah Marshall

Section Chief

Air Enforcement and Compliance Assurance Section (MI/WI)

U.S. Environmental Protection Agency, Region 5

(312) 886-6797

From: Schwebke, Peggy

Sent: Tuesday, July 03, 2018 9:31 AM

To: Marshall, Sarah <marshall.sarah@epa.gov>; Breneman, Sara <breneman.sara@epa.gov>; Mooney, John <Mooney.John@epa.gov>; Siegel, Kathryn <siegel.kathryn@epa.gov>

Subject: FW: Due 7/10: RSC Distribution: Tiering - June 2018 Tiering Approval Report

This RSC item is just a tiering approval report. There are OAR items regarding the MSW Landfills RTR; reconsideration of the Standards of Performance for Municipal Solid Waste Landfills and its companion rule, Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills; the MERPs Guidance; Renewable Fuel Standard Program Modification of Applicable Volumes; Prescribed Fire Addendum to Guidance on the Preparation of Exceptional Events Demonstrations for Wildfire Events that May Influence Ozone Concentrations; and a Petroleum Refinery Compliance Extension. If you're interested, there's also an OEI item on Revisions to the EPA's Privacy Act Regulations, and an OLEM item about proposing to add a provision exempting farms from reporting air emissions from animal waste under the Emergency Planning and Community Right-to-Know Act release notification.

If you have any comments on these tierings, please send them directly to Mayra by noon, Tuesday, July 10.

Thanks.

Peggy J. Schwebke

Division Program Analyst/Planner

Air & Radiation Division, Immediate Office

U.S. EPA, Region 5

phone: (312) 353-9309

From: Maldonado, Mayra

Sent: Tuesday, July 03, 2018 9:00 AM

To: Nam, Ed <nam.ed@epa.gov>; Furey, Eileen <furey.eileen@epa.gov>; Walts, Alan <walts.alan@epa.gov>; Anderson, Andrew <anderson.andrew@epa.gov>; Newton, Cheryl <Newton.Cheryl@epa.gov>; Sypniewski, Bruce <sypniewski.bruce@epa.gov>; Hyde, Tinka <hyde.tinka@epa.gov>; Harris, Michael <harris.michael@epa.gov>; Ballotti, Doug <ballotti.douglas@epa.gov>; Short, Thomas <short.thomas@epa.gov>

Cc: Jencius, Morgan <jencius.morgan@epa.gov>; Schwebke, Peggy <schwebke.peggy@epa.gov>; Hogan-Chereskin, Jean <hogan-chereskin.jean@epa.gov>; Bumba, Lauren <bumba.lauren@epa.gov>; Fisseha, Ashley

<Fisseha.Ashley@epa.gov>

Subject: Due 7/10: RSC Distribution: Tiering - June 2018 Tiering Approval Report

If you have any comments, please send them to me by noon, 7/10.

Thanks,

Mayra Maldonado, Associate Regional Planner
Planning & Quality Assurance Group, U.S. EPA Region 5
312-353-6261

From: Adams, Darryl

Sent: Tuesday, July 03, 2018 8:13 AM

To: RSC Core <RSC_Core@epa.gov>; RSC Regions Core <RSC_Regions_Core@epa.gov>; OCSPP Tiering <OCSPP_Tiering@epa.gov>

Subject: RSC Distribution: Tiering - June 2018 Tiering Approval Report

The June 2018 Tiering Approval Report has been created. RSC Representatives may respond directly. For others, please forward your comments through your RSC Representative. Please follow the doclink-> [Notes Link](#)

June 2018 Tiering Approval Report

07/03/2018

Action Count

Newly Tiered Actions: 9

Unresolved Tierings: 0

Change Requests: 0

Newly Tiered Actions Approved: 9

Newly Tiered Actions with Proposed Tier Change: 0

Change Requests Approved: 0

Responses From:

OECA - Keith Bartlett OECA/OAP/PLCD

OP - Stuart Miles-McLean OP/ORPM/PRAD

ORD - Stephen Watkins ORD/OAA

R01 - Pat Obrien R01

R04 - Tina Martin R04/OPM

R05 - Mayra Maldonado R05

R08 - Sonya Moore R08

Actions Not Approved

None

Approved Actions

New Tiering:

Lead Office: **OAR**

Proposed: Tier 2

SAN 6838: MSW Landfills RTR

External Abstract: This proposal will address the agency's residual risk and technology review (RTR) of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Municipal Solid Waste (MSW) Landfills. The MSW Landfills NESHAP, subpart AAAA, was promulgated pursuant to section 112(d) of the Clean Air Act (CAA) on January 16, 2003. The NESHAP established emission limitations based on maximum achievable control technology (MACT) for controlling emissions of hazardous air pollutants (HAP) and helped implement the Urban Air Toxics Strategy developed under section 112(k) of the CAA. The HAP emitted by MSW landfills include, but are not limited to, vinyl chloride, ethyl benzene, toluene and benzene. This action will implement the residual risk review requirements of CAA section 112(f)(2) and the technology review requirements of CAA section 112(d)(6). The statute directs the EPA to promulgate emission standards under CAA 112(f)(2) if such standards are required to provide an ample margin of safety to protect public health or to prevent, taking relevant factors into account, an adverse environmental effect. Any such standards are to be promulgated within 8 years after promulgation of MACT standards under CAA section 112(d). CAA section 112(d)(6) requires the EPA to review and revise the MACT standards as necessary, taking into account developments in practices, processes and control technologies, no less often than every 8 years. Pursuant to a court order, the EPA is obligated to complete the final action by March 13, 2020. In consideration of this deadline, which also applies to 19 other RTR source categories, we established an internal schedule for this RTR to be proposed and finalized prior to the consent decree deadline. The EPA currently plans to complete this action by March 14, 2019.

Action Document Link->Notes Link

RSC Representative: Tom Eagles OAR/OAA (202-564-1952)

Decision: Approved - Brittany Bolen (07/02/2018)

Current Workgroup Members:

Workgroup Chair: Andrew Sheppard/RTP/USEPA/US - OAR/OAQPS/SPPD/NRG (919-541-0000)
Workgroup Chair Alternate: Robin Dunkins/RTP/USEPA/US - OAR/OAQPS/SPPD (919-541-5335)
OECA Primary: Maria Malave/DC/USEPA/US - OECA/OC,CAMPD (202-564-7027)
OGC Primary: Karen Palmer/RTP/USEPA/US - OGC/ARLO (919-541-7837)
OLEM Primary: John Sager/DC/USEPA/US - OLEM/ORCR; RCSD (703-308-7256)
OLEM Secondary: Craig Dufficy/DC/USEPA/US - OLEM/OSW; MISWD (703-308-9037)
OP Primary: Jan Gilbreath/DC/USEPA/US - OP/ORPM/PRAD (202-564-6279)
OP Secondary: Elizabeth Kopits/DC/USEPA/US - OP/NCEE (202-566-2299)
OP Secondary: Alex Marten/DC/USEPA/US - OP/NCEE (202-566-2301)
ORD Primary: Stan Durkee/DC/USEPA/US - ORD/OAA; OSP (202-564-6784)
ORD Support: Mark Higuchi/RTP/USEPA/US - ORD/NHEERL/EPHD (919-541-4167)
ORD Support: Susan Thorneloe/RTP/USEPA/US - ORD/NRMRL; APPCD (919-541-2709)
R01 Primary: Patrick Bird/R1/USEPA/US - R01/OAR (617-918-1287)

New Tiering:

Lead Office: **OAR**

Proposed: Tier 2

SAN 6839: MSW Landfills Reconsideration

External Abstract: This action is in response to seven petitions for reconsideration by industry and environmental stakeholders of the agency's promulgated Standards of Performance for Municipal Solid Waste Landfills and its companion rule, Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills. The EPA finalized these two rules on August 29, 2016 (81 FR 59332 and 81 FR 59276). The petitions raised at least one objection to the rule requirements included in the final rule that arose after the comment period or was impracticable to raise during the comment period and that is of central relevance to the rule. In a letter signed May 5, 2017, the Administrator granted reconsideration of six specific issues in a petition from industry representatives: (1) tier 4 surface emission monitoring; (2) annual liquids reporting; (3) corrective action timeline procedures; (4) overlapping applicability with other rules; (5) the definition of cover penetration; and (6) design plan approval, as well as any other matter that will benefit from additional comment. This action proposes the EPA's response to the issues for which

the EPA granted reconsideration.

Action Document Link->Notes Link

RSC Representative: Tom Eagles OAR/OAA (202-564-1952)

Decision: Approved - Brittany Bolen (07/02/2018)

Current Workgroup Members:

Workgroup Chair: Andrew Sheppard/RTP/USEPA/US - OAR/OAQPS/SPPD/NRG (919-541-0000)
Workgroup Chair Alternate: Robin Dunkins/RTP/USEPA/US - OAR/OAQPS/SPPD (919-541-5335)
OECA Primary: Maria Malave/DC/USEPA/US - OECA/OC,CAMPD (202-564-7027)
OGC Primary: Karen Palmer/RTP/USEPA/US - OGC/ARLO (919-541-7837)
OLEM Primary: John Sager/DC/USEPA/US - OLEM/ORCR; RCSD (703-308-7256)
OLEM Secondary: Craig Dufficy/DC/USEPA/US - OLEM/OSW; MISWD (703-308-9037)
OP Primary: Jan Gilbreath/DC/USEPA/US - OP/ORPM/PRAD (202-564-6279)
OP Secondary: Elizabeth Kopits/DC/USEPA/US - OP/NCEE (202-566-2299)
OP Secondary: Alex Marten/DC/USEPA/US - OP/NCEE (202-566-2301)
ORD Primary: Stan Durkee/DC/USEPA/US - ORD/OAA; OSP (202-564-6784)
ORD Support: Mark Higuchi/RTP/USEPA/US - ORD/NHEERL/EPHD (919-541-4167)
ORD Support: Susan Thorneloe/RTP/USEPA/US - ORD/NRMRL; APPCD (919-541-2709)
R01 Primary: Patrick Bird/R1/USEPA/US - R01/OAR (617-918-1287)

New Tiering:

Lead Office: **OAR**

Proposed: Tier 3

SAN 6882: MERPs Guidance

External Abstract: This guidance is intended to streamline and reduce burden on stakeholders and state/local air agencies conducting PSD compliance demonstration for ozone and PM2.5. It provides emissions thresholds for screening use by permit applicants and a framework by which they can develop their own credible screening emissions thresholds.

Action Document Link->Notes Link

RSC Representative: Tom Eagles OAR/OAA (202-564-1952)

Decision: Approved - Brittany Bolen (07/02/2018)

Current Workgroup Members:

Workgroup Chair: George Bridgers/RTP/USEPA/US - OAR/OAQPS/AQAD/AQMG (919-541-5563)
OGC Primary: Mark Kataoka/DC/USEPA/US - OGC/ARLO (202-564-5584)
OP Primary: Bruce Schillo/DC/USEPA/US - OP/ORPM/PRAD (202-564-6552)

New Tiering:

Lead Office: **OAR**

Proposed: Tier 2

SAN 6884: Renewable Fuel Standard Program Modification of Applicable Volumes

External Abstract: Under the statutory provisions governing the Renewable Fuel Standard (RFS) program, EPA is required to modify the applicable annual volume targets specified in the statute for future years if waivers of those volumes in past years met certain specified thresholds. Those thresholds have been met or are expected to be met in the near future. As a result, EPA is proposing a rulemaking that will propose modifying the applicable volumes targets for cellulosic biofuel, advanced biofuel, and total renewable fuel for the years 2020 - 2022.

Action Document Link->Notes Link

RSC Representative: Tom Eagles OAR/OAA (202-564-1952)

Decision: Approved - Brittany Bolen (07/02/2018)

Current Workgroup Members:

Workgroup Chair: David Korotney/AA/USEPA/US - OAR/OTAQ (734-214-4507)

OECA Primary: Melissa Schefski - OECA/OCE

OGC Primary: Ryland Li/DC/USEPA/US - OGC/ARLO (202-564-6787)

OP Primary: Paula VanLare/DC/USEPA/US - OP/ORPM/PRAD (202-566-2951)

OP Secondary: Peter Nagelhout/DC/USEPA/US - OP/NCEE (202-566-2313)

New Tiering:

Lead Office: **OAR**

Proposed: Tier 3

SAN 6885: Prescribed Fire Addendum to Guidance on the Preparation of Exceptional Events Demonstrations for Wildfire Events that May Influence Ozone Concentrations

External Abstract: In this action, the EPA is issuing an addendum to the previously issued final Guidance on the Preparation of Exceptional Events Demonstrations for Wildfire Events that May Influence Ozone Concentrations, which will complement the guidance by consolidating information that can support air agencies in addressing the Exceptional Events Rule criteria for prescribed fire on wildland. Specifically, the document identifies example analyses and supporting documentation that air agencies may use to show that prescribed fire events on wildland meet the "human activity unlikely to recur at a particular location" and "not reasonably controllable or preventable" criteria. Successful demonstrations help air agencies reduce burden associated with regulatory planning.

Action Document Link->Notes Link

RSC Representative: Tom Eagles OAR/OAA (202-564-1952)

Decision: Approved - Brittany Bolen (07/02/2018)

Current Workgroup Members:

Workgroup Chair: Benjamin Gibson/RTP/USEPA/US - OAR/OAQPS (919-541-3277)

Workgroup Chair Alternate: Lev Gabrilovich/RTP/USEPA/US - OAR/OAQPS/AQPD/OPG (919-541-1496)

OGC Primary: Emily Seidman/DC/USEPA/US - OGC/ARLO (202-564-0000)

OP Primary: Paula VanLare/DC/USEPA/US - OP/ORPM/PRAD (202-566-2951)

New Tiering:

Lead Office: **OAR**

Proposed: Tier 3

SAN 6892: Petroleum Refinery Compliance Extension

External Abstract: This action proposes to further extend the date for refiners to comply with standards in the final rule (signed September 29, 2015, published December 1, 2015, 80 FR 75178), applicable to periods of startup, shutdown and maintenance, but will not result in additional requirements that will impose additional cost. We expect the additional compliance time will have an insignificant effect on emission reductions, as many refiners already have measures in place to minimize emissions during these periods, even if they don't currently conform to all the requirements in the final sector rule. Further, these periods are relatively infrequent and usually of short duration.

Action Document Link->Notes Link

RSC Representative: Tom Eagles OAR/OAA (202-564-1952)

Decision: Approved - Brittany Bolen (07/02/2018)

Current Workgroup Members:

Workgroup Chair: Brenda Shine/RTP/USEPA/US - OAR/OAQPS/SPPD (919 541-3608)

Workgroup Chair Alternate: Angela Carey/RTP/USEPA/US - OAR/OAQPS/SPPD/RCG (919-541-2187)

OECA Primary: Maria Malave/DC/USEPA/US - OECA/OC,CAMPD (202-564-7027)

OGC Primary: Jan Tierney/DC/USEPA/US - OGC/ARLO (202-564-5598)

OP Primary: Ann Johnson/DC/USEPA/US - OP/ORPM/PRAD (202-564-5966)

New Tiering:

Lead Office: OEI

Proposed: Tier 3

SAN 6820: Revisions to the EPA's Privacy Act Regulations

External Abstract: EPA is revising its regulations (40 CFR Part 16) implementing the Privacy Act (5 U.S.C. 552a to (1) add new Exempted Systems of Records; (2) revise regulations covering existing systems that have been previously published in the Federal Register as exempt; (3) change the Agency Privacy Officer's title (4) change the process for submitting Privacy Act requests to the Agency; (5) require a notarized statement for accessing, correcting and amending personal records; (6) add new provisions for the Social Security Fraud Prevention Act and; (7) include an appendix to include General Routine Uses applicable to more than one system.

Action Document Link->Notes Link

RSC Representative: Pat Williams OEI/IO/OPRO (202-566-0204)

Decision: Approved - Brittany Bolen (07/02/2018)

Current Workgroup Members:

Workgroup Chair: Judy Earle/DC/USEPA/US - OEI (202-566-1668)

OGC Primary: Kevin Miller/DC/USEPA/US - OGC/GLO (202-564-2691)

OP Primary: Shari Grossarth/DC/USEPA/US - OP/ORPM (202-566-2242)

New Tiering:

Lead Office: OLEM

Proposed: Tier 3

SAN 6879: Safe Management of Recalled Airbags

External Abstract: In order to help address the urgent public health issue posed by recalled Takata airbag inflators still installed in vehicles, EPA is developing an interim final rule that would facilitate the speed and efficiency of the Takata airbag recall by exempting the collection of defective airbags and airbag inflators from auto dealers and scrap yards from hazardous waste requirements, so long as certain conditions are met to ensure the airbags and airbag inflators are safely disposed.

Action Document Link->Notes Link

RSC Representative: Gerain Cogliano OLEM/OAA (202-566-1929)

Decision: Approved - Brittany Bolen (07/02/2018)

Current Workgroup Members:

Workgroup Chair: Tracy Atagi/DC/USEPA/US - OLEM/ORCR/MRWMD (703 308-8672)

OECA Primary: Leslie Oif/DC/USEPA/US - OECA/OCE,WCED (202-564-2291)

OGC Primary: Katherine Nam/DC/USEPA/US - OGC/SWERLO (202-564-5512)

OP Primary: Brett VanAkkeren/DC/USEPA/US - OP/ORPM/OP (202-566-2865)

ORD Primary: Walter Cyburski/DC/USEPA/US - ORD/OAA; OSP (202-564-2409)

New Tiering:

Lead Office: OLEM

Proposed: Tier 3

SAN 6881: EPCRA Interpretation Rule

External Abstract: The Environmental Protection Agency (EPA) is proposing to add a provision

exempting farms from reporting air emissions from animal waste under the Emergency Planning and Community Right-to-Know Act release notification. In addition, EPA is proposing to add the definitions of "farm" and "animal waste" to the regulations under the Emergency Planning and Community Right-to-Know Act. The agency is seeking to relieve state and local emergency response agencies to more effectively focus resources on protecting public health and welfare and the environment from accidents involving chemicals that pose danger to the community. The agency is also seeking to relieve the regulated community from the burden of making such reports.

Action Document Link->Notes Link

RSC Representative: Gerain Cogliano OLEM/OAA (202-566-1929)

Decision: Approved - Brittany Bolen (07/02/2018)

Current Workgroup Members:

Workgroup Chair: Sicy Jacob/DC/USEPA/US - OLEM/OEM (202 564-8019)

OECA Primary: Dean Ziegel/DC/USEPA/US - OECA/OCE,WCED (202-564-4038)

OGC Primary: Elise ODea/DC/USEPA/US - OGC/SWERLO (202-564-0000)

OGC Primary: Erik Swenson/DC/USEPA/US - OGC/SWERLO (202-564-7252)

OP Primary: Sharon Cooperstein/DC/USEPA/US - OP/ORPM/PRAD (202-564-7051)